MRS. HALE'S

RECEIPTS FOR THE MILLION:

CONTAINING

FOUR THOUSAND FIVE HUNDRED AND FORTY-FIVE

Receipts, Facts, Directions, etc.

IN THE

USEFUL, ORNAMENTAL, AND DOMESTIC ARTS,

AND IN THE CONDUCT OF LIFE.

BEING A

COMPLETE FAMILY DIRECTORY.

RELATIVE TO

Accomplishments,	Economy,	Ladies' Work,	Phrenology,
Amusements,	Etching,	Feather Work,	Potichomanie,
Beauty,	Etiquette,	Manners,	Poultry,
Birds,	Flowers,	Marriage,	Riding,
Building,	Gardening,	Medicines,	Swimming,
Children,	Grecian Painting,	Needlework,	Surgery, Domestic
Cookery,	Health,	Nursing,	Temperance,
Courtship,	Home,	Out-Door Work,	Trees, etc.
Dress, etc.	Housekeeping,	Painting,	Women's Duties,

Words of Washington, etc.

BY MRS. SARAH JOSEPHA HALE.

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SARAH JOSEPHA HALE,

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PREFACE.

"*All the labor of man s for his mouth*," says Solomon. If this proverb be understood, as it was undoubtedly meant—that the chief aim and purpose of all human labor are to make the homes of mankind places of enjoyment, we see how important the art of household management becomes.

While preparing my "New Cook Book," I was naturally led to examine the subject, and the result was a deep conviction of the need of another work on domestic economy, or directions how to guide the house. This led me to prepare the present treatise, embodying rules and receipts, such as never before have been brought together for the help and instruction of a household.

"*Knowledge is power*" always; knowledge used for good purposes is wisdom. Knowledge, like gold, must be gained by personal effort; and usually, in small quantities, and by continued exertions, both wisdom and gold are accumulated.

It has been by washing the sands of common experience and gathering the small bits of science and art found here and there on the mining ground of common knowledge, that this large work, containing the pure gold of truth, applicable to all the needs of common life, has been made. A few *nuggets* will be seen, such as the collected maxims of Franklin, and the "Words of Washington," never before placed within the reach of the popular mind.

In the economy and well-being of the family, personally and individually, improvement should be sedulously kept in view. It is not enough that woman understands the art of cookery and of managing her house: she must also take care of herself; of children; of all who will be dependent on her for direction, for health, for happiness.

Personal appearance is important; the art of beautifying a home is important; the knowledge of ways and means by which the clothing of a family may be kept in good order, with the least expense of time and money, is important; some knowledge of plants, flowers, gardening, and of domestic animals, is of much benefit, particularly to those who

live in the country; and more important than all, is a knowledge of the best means of preserving or restoring health. Then there is the very important matter of home happiness to be kept in view. Amusements, accomplishments, elegant arts, manners, modes of conduct in society; all these are necessary knowledge. And to crown the whole, those indispensable rules and maxims of moral improvement, which are the foundation of good in the character and life of rational, immortal beings, must be made familiar. All this has been attempted in "Receipts for the Million," as every person may see by examining "The Table of Contents" and the "Index."

The aim of both my works on domestic matters has been to awaken the attention of my own sex to these subjects, belonging, so unquestionably, to woman's department. *The home administration* is in her hands; how salutary and powerful this may be made in its influence on humanity is yet hardly imagined, even by the most sagacious and earnest advocates of woman's elevation.

Would that those of my sex who are urging onward, into the industrial pursuits, and other professions appropriate for men, might turn their attention to improvements in domestic economy. Here is an open field, where their heads and hearts as well as hands may find ample scope and noble objects. The really great woman never undervalues her own sphere. Madame Roland excelled in her *mènage;* Mrs. Somerville is eminent for domestic qualities; Mrs. Sigourney is a pattern housekeeper; and a multitude of other names and examples may be met with in my recent work,* where genius is found adorning home pursuits.

There should be Lectures on Housekeeping, and other subjects connected with domestic life, instituted in every Ladies Seminary. This would serve to remedy, in some degree, the evils that now attend a boarding-school education. The grand defect of this is, that teachers too often leave out of sight the application of learning to the home pursuits of young ladies. So when these return to the parental roof, they give themselves up to novel reading, as their chief mental resource.

A better time is coming. Women, capable of using their faculties for the improvement of society, will not much longer remain in the castle of indolence. Miss Nightingale will find followers. And as the active pursuits of women will naturally centre in the domestic circle, great advances in the art of making home the place of happiness must be made.

May this book help onward the good work.

S. J. H.

Philadelphia, October 1st, 1857.

* "A Biographical Dictionary of Distinguished Women."

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PART I.

HOME AND ITS EMPLOYMENTS.

House-cleaning — Repairing Furniture — Washing — Mending Glass, China, &c.—Dyeing—Blacking for Boots, Shoes, &c.— To destroy Insects—The Kitchen, &c.

1. *House Cleaning.*—The spring is more particularly the time for house-cleaning; though, of course, it requires attention monthly.

Begin at the top of the house; first take up the carpets, and, if they require it, let them be scoured; or as carpets are sometimes injured by scouring, they may be well beaten, and if necessary, washed with soda and water.

Remove all the furniture from the room, have the chimneys swept where fires have been kept, and clean and blacken the grates. Wrap old towels, (they should be clean), around the bristles of the broom, and sweep lightly the ceiling and paper; or, if requisite, the paper should be cleaned with bread, as elsewhere directed. Then wash the paint with a flannel or sponge, and soap and water, and, as fast as one person cleans, another should follow, and with clean cloths, wipe the paint perfectly dry. Let the windows be cleaned, and scour the floor. Let the furniture be well rubbed; and the floor being dry, and the carpets laid down, the furniture may be replaced. The paper should be swept every three months.

2. *To clean Bed rooms.*—In cleaning bed-rooms infested with bugs, take the bedsteads asunder, and wash every part of them,

but especially the joints, with a strong solution of corrosive sublimate in spirits of turpentine; as the sublimate is a fatal poison, the bottle containing the above solution should be labelled "Poison;" it should be used very carefully, and laid on with a brush kept for the purpose. Bugs can only be removed from walls by taking down the paper, washing them with the above poison, and re-papering.

In bed-rooms with fires, a whisk-brush is best to clear the curtains and hangings from dust.

To remove grease or oil from boards, drop on the spots spirits of turpentine before the floor is scoured.

The house-maid should be provided with a box, with divisions, to convey her various utensils, as brushes, black lead, &c., from room to room, and a small mat to kneel upon while cleaning the grate.

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3. *Scouring Bed-rooms.*—This should never be done in winter if it can be avoided, as it is productive of many coughs and colds. If inevitable, a dry day should be selected, and the windows and doors should be left wide open till dusk. A fire ought always to be made in the room after cleaning.

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4. *To clean Carpets.*—Before sweeping a carpet, sprinkle over it a few handfuls of waste tea-leaves. A stiff hair-broom or brush should be used, unless the carpet be very dirty, when a whisk or carpet-broom should be used first, followed by another made of hair to take off the loose dirt. The frequent use of a stiff broom soon injures the beauty of the best carpet. An ordinary clothes-brush is best adapted for superior carpets.

When Brussels carpets are very much soiled, take them up and beat them perfectly free from dust. Have the floor thoroughly scoured and dry, and nail the carpet firmly down to it. If still soiled, take a pailful of clean, cold water, and put into it about three gills of ox-gall. Take another pail, with clean, cold water only; now rub with a soft scrubbing-brush some of the ox-gall water on the carpet, which will raise a lather. When a convenient-sized portion is done, wash the lather off with a clean linen cloth dipped in the clean water. Let this water be changed frequently. When all the lather has disappeared, rub the part with a clean, dry cloth. After all is done, open the window to allow the carpet to dry. A carpet treated in this manner, will be greatly refreshed in color, particularly the greens. Kiddermin-

ster carpets will scarcely bear the above treatment without becoming so soft as speedily to become dirty again. This may, in some measure, be prevented by brushing them over with a hot, weak solution of size in water, to which a little alum has been added. Curd soap dissolved in hot water, may be used instead of ox-gall, but it is more likely to injure the colors, if produced by false dyes. Where there are spots of grease in the carpeting, they may be covered with curd soap dissolved in boiling water, and rubbed with a brush until the stains are removed, when they must be cleaned with warm water as before. The addition of a little gall to the soap renders it more efficacious.

The carpets should be nailed on the full stretch, else they will shrink.

Fullers' earth is also used for cleaning carpets; and alum, or soda, dissolved in water, for reviving the colors.

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5. *To clean Turkey Carpets.*—To revive the color of a Turkey carpet, beat it well with a stick till the dust is all got out; then, with a lemon or sorrel juice, take out the spots of ink, if the carpet be stained with any; wash it in cold water, and afterwards shake out all the water from the threads of the carpet. When it is thoroughly dry, rub it all over with the crumb of a hot wheaten loaf; and, if the weather is very fine, hang it out in the open air a night or two.

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6. *Cheap Carpeting.*—Sew together strips of the cheapest cotton cloth, of the size of the room, and tack the edges to the floor. Then paper the cloth, as you would the sides of a room, with any sort of room paper. After being well dried, give it two coats of varnish, and your carpet is finished. It can be washed like carpets, without injury, retains its gloss, and, on chambers or sleeping rooms, where it will not meet rough usage, will last for two years, as good as new.

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7. *To beat a Carpet.*—Hang the carpet upon a clothes-line, or upon a stout line between two trees; it should then be beaten on the *wrong side*, by three or four persons, each having a pliable stick, with cloth tied strongly in a knob on the end, in order to prevent the carpet from being torn, or the seams split, by the sharp end of the stick. When thoroughly beaten on the wrong side, the carpet should be turned, and beaten on the right side.

8. *Floor or Oil Cloths.*—Floor-cloths should be chosen that are painted on a fine cloth, which is well covered with the color, and the patterns on which do not rise much above the ground, as they wear out first. The durability of the cloth will depend much on these particulars, but more especially on the time it has been painted, and the goodness of the colors. If they have not been allowed sufficient time for becoming thoroughly hardened, a very little use will injure them; and, as they are very expensive articles, care in preserving them is necessary. It answers to keep them some time before they are used, either hung up in a dry barn where they will have air, or laid down in a spare room.

When taken up for the winter, they should be rolled round a carpet-roller, and observe not to crack the paint by turning the edges in too suddenly.

Old carpets answer extremely well, painted and seasoned some months before laid down. If for passages, the width must be directed when they are sent to the manufactory, as they are cut before painting.

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9. *To clean Floor cloths.*—Sweep, then wipe them with a flannel; and when all dust and spots are removed, rub with a waxed flannel, and then with a dry plain one; but use little wax, and rub only enough with the latter to give a little smoothness, or it may endanger falling.

Washing now and then with milk, after the above sweeping and dry-rubbing them, gives as beautiful a look, and they are less slippery.

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10. *Method of Cleaning Paper-hangings.*—Cut into eight half quarters a large loaf, two days old; it must neither be newer nor staler. With one of these pieces, after having blown off all the dust from the paper to be cleaned, by means of a good pair of bellows, begin at the top of the room, holding the crust in the hand, and wiping lightly downward with the crumb, about half a yard at each stroke, till the upper part of the hangings is completely cleaned all round. Then go round again, with the like sweeping stroke downwards, always commencing each successive course a little higher than the upper stroke had extended, till the bottom be finished. This operation, if carefully performed, will frequently make very old paper look almost equal to new.

Great caution must be used not by any means to rub the paper hard, nor to attempt cleaning it the cross, or horizontal way. The dirty part of the bread, too, must be each time cut away, and the pieces renewed as soon as it may become necessary.

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11. *To clean Paint.*—Never use a cloth, but take off the dust with a little long-haired brush, after blowing off the loose parts with the bellows. With care, paint will look well for a long time, if guarded from the influence of the sun. When soiled, dip a sponge or a bit of flannel into soda and water, wash it off quickly, and dry immediately, or the soda will eat off the color. Some persons use strong soap and water, instead.

When the wainscot requires scouring, it should be done from the top downwards, and the water be prevented from running on the unclean parts as much as possible, or marks will be made which will appear after the whole is finished. One person should dry with old linen, as fast as the other has scoured off the dirt, and washed off the soap.

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12. *To give to Boards a beautiful appearance.*—After washing them very nicely with soda and warm water and a brush, wash them with a very large sponge and clean water. Both times observe to leave no spot untouched; and clean straight up and down, not crossing from board to board; then dry with clean cloths, rubbed hard up and down in the same way.

The floors should not be often wetted, but very thoroughly when done; and once a-week dry-rubbed with hot sand and a heavy brush the right way of the boards.

The sides of stairs or passages on which are carpets or floor-cloths, should be washed with sponge instead of linen or flannel, and the edges will not be soiled. Different sponges should be kept for the above two uses; and those and the brushes should be well washed when done with, and kept in dry places.

To extract Oil from Boards or Stone.—Make a strong ley of pearlashes and soft water, and add as much unslaked lime as it will take up; stir it together, and then let it settle a few minutes; bottle it, and stop close; have ready some water to lower it as used, and scour the part with it. If the liquor should lie long on the boards, it will draw out the color of them; therefore do it with care and expedition.

13. *To scour Boards.*—Mix together one part lime, three parts common sand, and two parts soft soap; lay a little of this on the scrubbing-brush, and rub the board thoroughly. Afterwards rinse with clean water, and dry with a clean coarse cloth. This will keep the boards a good color: it is also useful in keeping away vermin. For that object, early in the spring, beds should be taken down, and furniture in general removed and examined; bed-hangings and window-curtains, if not washed, should be shaken and brushed; and the joints of bedsteads, the backs of drawers, and indeed, every part of furniture, except polished mahogany, should be carefully cleaned with the above mixture, or with equal parts of lime and soft soap, without any sand. In old houses, where there are holes in the boards, which often abound with vermin, after scrubbing in, as far as the brush can reach, a thick plaster of the above should be spread over the holes, and covered with paper. When these things are timely attended to, and combined with general cleanliness, vermin may generally be kept away, even in crowded cities.

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14. *To wash Stone Stairs and Halls.*—Wash them first with hot water and a clean flannel, and then wash them over with pipe-clay mixed in water. When dry, rub them with a coarse flannel.

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15. *To take Oil and Grease out of Floors and Stone Halls.*—Make a strong infusion of potash with boiling water; add to it as much quick-lime as will make it of the consistence of thick cream; let it stand a night, then pour off the clear part, which is to be bottled for use. When wanted, warm a little of it; pour it upon the spots, and after it has been on them for a few minutes, scour it off with warm water and soap, as it is apt to discolor the boards when left too long on them. When put upon stone, it is best to let it remain all night; and if the stain be a bad one, a little powdered hot lime may be put upon it before the infusion is poured on.

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16. *To clean Marble.*—Muriatic acid, either diluted or pure, as occasion may require, proves efficacious. If too strong, it will deprive the marble of its polish, which may be easily restored by the use of a piece of felt, with some powder of putty or tripoli, with either, making use of water.

17. *To clean Marble. Another way.*—Mix ¼ lb. of soft soap with the same of pounded whiting, 1 oz. of soda, and a piece of stone-blue the size of a walnut; boil these together for ¼ of an hour; whilst hot, rub it over the marble with a piece of flannel, and leave it on for 24 hours; then wash it off with clean water, and polish the marble with a piece of coarse flannel, or what is better, a piece of an old hat.

18. *To take Stains out of Marble.*—Mix unslaked lime in finest powder with stringent soap-ley, pretty thick, and instantly with a painter's brush lay it on the whole of the marble. In two months' time wash it off perfectly clean; then have ready a fine thick lather of soft soap, boiled in soft water; dip a brush in it, and scour the marble. This will, with very good rubbing, give a beautiful polish.

19. *To take Iron-stains out of Marble.*—An equal quantity of fresh spirit of vitriol and lemon-juice being mixed in a bottle, shake it well; wet the spots, and in a few minutes rub with soft linen till they disappear.

20. *Mixture for cleaning Stone Stairs, Hall Pavements, &c.*—Boil together half a pint each of size and stone-blue water, with two table-spoonfuls of whiting, and two cakes of pipe-makers' clay, in about two quarts of water. Wash the stones over with a flannel slightly wetted in this mixture; and when dry, rub them with flannel and a brush. Some persons recommend beer, but water is much better for the purpose.

21. *To Color or Paper the Walls of Rooms.*—If a ceiling or wall is to be whitewashed or colored, the first thing to be done is, to wash off the dirt and stains with a brush and clean water, being careful to move the brush in one direction, up and down, and not all sorts of ways, or the work will look smeary afterwards. When dry, the ceiling is ready for whitewash, which is to be made by mixing whiting and water together, till quite smooth, and as thick as cream. Dissolve half-an-ounce of glue in a teacupful of water, stir it into the whitewash. This *size*, as it is called, prevents the white or color rubbing off the wall, and a teacupful is enough for a gallon of wash. Stone color is made by mixing a little yellow ochre and blue black with the size, and then stirring it into the whitewash; yellow or red ochre are also

good colors, and, with vermilion or indigo, any shade may be prepared, according to taste.

If paper is to be used, the wall must be washed with clean water, as above explained; and while wet, the old color must be scraped off with a knife, or a smooth-edged steel scraper of any sort. It will be best to wet a yard or two at a time, and then scrape. Next, wash the wall all over with size, made with an ounce of glue to a gallon of water; and when this is dry, the wall is ready for the paper. This must be cut into lengths according to the different parts of the room; one edge of the plain strip must be cut off close to the pattern, and the other left half an inch wide. If the paper is thick, it should lie a minute or two after it is pasted; but if thin, the sooner it is on the wall, the better. Begin by placing the close-cut edge of the paper at one side of the window, stick it securely to meet the ceiling, let it hang straight, and then press it down lightly and regularly with a clean cloth. The close-cut edge of the next length will cover the half-inch left on the first one, and so make a neat join; and in this way you may go all round the room, and finish at the other side of the window.

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22. *Damp Walls.*—Damp may be prevented from exuding from walls by first drying them thoroughly, and then covering them with the following mixture: In a quart of linseed oil, boil three ounces of litharge, and four ounces of resin. Apply this in successive coats, and it will form a hard varnish on the wall after the fifth coating.

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23. *To clean Moreen Curtains.*—Having removed the dust and clinging dirt as much as possible with a brush, lay the curtain on a large table, sprinkle on it a little bran, and rub it round with a piece of clean flannel; when the bran and flannel become soiled, use fresh, and continue rubbing till the moreen looks bright, which it will do in a short time.

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24. *To clean Calico Furniture.*—Shake off the loose dust; then lightly brush with a small, long-haired furniture-brush; after which wipe it closely with clean flannels, and rub it with dry bread.

If properly done, the curtains will look nearly as well as at first; and, if the color be not light, they will not require washing for years.

Fold in large parcels, and put carefully by.

While the furniture remains up, it should be preserved from the sun and air as much as possible, which injure delicate colors; and the dust may be blown off with bellows.

By the above mode curtains may be kept clean, even to use with the linings newly dipped.

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25. *Making Beds.*—Close or press bedsteads are ill adapted for young persons or invalids; when their use is unavoidable, the bed-clothes should be displaced every morning, and left for a short time before they are shut up.

The windows of bed-rooms should be kept open for some hours every day, to carry off the effluvia from the bed-clothes; the bed should also be shaken up, and the clothes spread about, in which state the longer they remain, the better.

The bed being made, the clothes should not be tucked in at the sides or foot, as that prevents any further purification taking place, by the cool air passing through them.

A warming-pan should be chosen without holes in the lid. About a yard of moderately-sized iron chain, made red hot and put into the pan, is a simple and excellent substitute for coals.

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26. *To Detect Dampness in Beds.*—Let the bed be well warmed, and immediately after the warming-pan is taken out, introduce between the sheets, in an inverted position, a clean glass goblet: after it has remained in that situation a few minutes, examine it; if found dry and not tarnished with steam, the bed is perfectly safe; and *vice versa*. In the latter case, it will be best to sleep between the blankets.

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27. *Beech-tree Leaves.*—The leaves of the beech-tree, collected at autumn, in dry weather, form an admirable article for filling beds for the poor. The smell is grateful and wholesome; they do not harbor vermin, are very elastic, and may be replenished annually without cost.

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28. *Useful Hints relative to Bed-clothes, Mattresses, Cushions, &c.*—The purity of feathers and wool employed for mattresses and cushions ought to be considered as a first object of salubrity. Animal emanations may, under many circumstances, be prejudicial to the health; but the danger is still greater, when

the wool is impregnated with sweat of persons who have experienced putrid and contagious diseases. Bed-clothes, and the wool of mattresses, therefore, cannot be too often beat, carded, cleaned, and washed. This is a caution which cannot be too often recommended.

It would be very easy in most situations, and very effectual, to fumigate them with muriatic gas.

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29. *To clean Feathers of their Oil.*—In each gallon of clean water mix a pound of quick-lime, and when the undissolved lime settles in fine powder, pour off the lime-water for use. Having put the feathers to be cleaned into a tub, pour the clear lime-water upon them, and stir them well about; let them remain three or four days in the lime-water, which should then be separated from them by laying them in a sieve. The feathers should next be washed in clean water, and dried upon fine nets; they will then only require beating, to get rid of the dust, previous to use.

To restore the spring of damaged feathers, it is only necessary to dip them in warm water for a short time.

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30. *To purify Wool infested with Insects.*—The process of purification consists in putting into three pints of boiling water a pound and a half of alum, and as much cream of tartar, which are diluted in twenty-three pints more of cold water. The wool is then left immersed in this liquor during some days, after which it is washed and dried. After this operation, it will no longer be subject to be attacked by insects.

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31. *To clean Looking-glasses.*—Keep for this purpose a piece of sponge, a cloth, and a silk handkerchief, all entirely free from dirt, as the least grit will scratch the fine surface of the glass. First, sponge it with a little spirit of wine, or gin and water, so as to clean off all spots; then, dust over it powder-blue, tied in muslin, rub it lightly and quickly off with the cloth, and finish by rubbing it with the silk handkerchief. Be careful not to rub the edges of the frames.

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32. *To preserve Gilding, and clean it.*—It is impossible to prevent flies from staining the gilding without covering it; before which, blow off the light dust, and pass a feather or clean brush

over it, but never touch it with water; then, with strips of paper, or rather gauze, cover the frames of your glasses, and do not remove till the flies are gone.

Linen takes off the gilding and deadens its brightness; it should, therefore, never be used for wiping it.

A good preventive against flies is, to boil three or four leeks in a pint of water, and then with a gilding-brush wash over the glasses and frames with the liquid, and the flies will not go near the articles so washed. This will not injure the frames in the least. Stains or spots may be removed by gently wiping them with cotton dipped in sweet oil.

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33. *To retouch the rubbed parts of a Picture-frame.*—give the wood a coating of size made by dissolving isinglass with a weak spirit. When nearly dry, lay on some gold leaf; and polish, when quite dry, with an agate burnisher, or any similar substance.

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34. *Furniture Oil.*—Put into a jar one pint of linseed oil into which stir one ounce of powdered rose pink, and one ounce of alkanet root, beaten in a mortar: set the jar in a warm place for a few days, when the oil will be deeply colored, and the substances having settled, the oil may be poured off, and will be excellent for darkening new mahogany.

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35. *Furniture Paste.*—Put turpentine into a glazed pot, and scrape beeswax into it, which stir about till the liquid is of the thickness of cream; it will then be good for months, if kept clean; and furniture cleaned with the liquid thus made, will not receive stains so readily as when the turpentine and wax are heated over the fire; which plan is, besides, very dangerous; but if the heating be preferred, place the vessel containing the wax and turpentine in another containing boiling water.

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36. *French Polish for Furniture.*—To one pint of spirits of wine, add half an ounce of gum-shellac, half an ounce of gum-lac, a quarter of an ounce of gum-sandarac; place the whole in a gentle heat, frequently shaking it, till the gums are dissolved, when it is fit for use. Make a roller of list, put a little of the polish upon it, and cover that with a piece of soft linen rag, which must be lightly touched with cold-drawn linseed oil. Rub the wood in a circular direction, not covering too large a

space at a time, till the pores of the wood are sufficiently filled up. After this, rub in the same manner spirits of wine, with a small portion of the polish added to it; and a most brilliant polish will be produced. If the article should have been polished with wax, it will be necessary to clean it off with fine glass paper.

37. *Another Polish and Varnish.*—The only way to preserve polish on rosewood French-polished furniture, is to keep it continually rubbed with a chamois leather and a silk handkerchief. We have no better remedy to offer for scratches on the wood than filling them in with a little oil covered with alkanet-root. The following varnish for furniture not French-polished, has been highly recommended: Melt one part of virgin white wax with eight parts of petroleum; lay a slight coat of this mixture on the wood with a fine brush while warm; the oil will then evaporate, and leave a thin coat of wax, which should afterwards be polished with a coarse woolen cloth.

38. *Polish for Dining Tables*—Is to rub them with cold-drawn linseed oil, thus: Put a little in the middle of a table, and then with a piece of linen (never use woolen) cloth rub it well all over the table; then take another piece of linen and rub it for ten minutes, then rub it till quite dry with another cloth. This must be done every day for some months, when you will find your mahogany acquire a permanent and beautiful lustre, unattainable by any other means, and equal to the finest French polish; and if the table is covered with the table-cloth only, the hottest dishes will make no impression upon it; and when once this polish is produced, it will only require dry rubbing with a linen cloth for about ten minutes, twice in a week, to preserve it in the highest perfection; which never fails to please your employers; and remember, that to please others is always the surest way to profit yourself.

If the appearance must be more immediately produced, take some FURNITURE PASTE.

39. *Varnished Furniture.*—This may be finished off so as to look equal to the best French polished wood, in the following manner, which is also suitable to other varnished surfaces. Take two ounces of Tripoli powder, put it into an earthen pot, with just enough water to cover it; then take a piece of white

flannel, lay it over a piece of cork or rubber, and proceed to polish the varnish, always wetting it with the Tripoli and water. It will be known when the process is finished by wiping a part of the work with a sponge, and observing whether there is a fair, even gloss. When this is the case, take a bit of mutton suet and fine flour, and clean the work.

Frames of varnished wood may be cleaned to look new, by careful washing with a sponge and soap and water, but nothing stronger should be used.

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40. *Varnish for Violins, &c.*—Take a gallon of rectified spirits of wine, twelve ounces of mastic, and a pint of turpentine varnish; put them all together in a tin can, and keep it in a very warm place, shaking it occasionally till it is perfectly dissolved; then strain it, and it is fit for use. If you find it necessary, you may dilute it with turpentine varnish. This varnish is also very useful for furniture of plum-tree, mahogany, or rosewood.

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41. *White Varnish.*—The white varnish used for toys is made of sandarac, eight ounces; mastic, two ounces; Canada balsam, four ounces; alcohol, one quart. This is white, drying, and capable of being polished when hard. Another varnish for objects of the toilet, such as work-boxes, card-cases, &c., is made of gum sandarac, six ounces; elemi (genuine), four ounces: anime, one ounce; camphor, half an ounce; rectified spirit, one quart. Melt slowly. These ingredients may, of course, be lessened in proportion.

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42. *To remove Ink-spots from Mahogany.*—Drop on the spots a very small quantity of spirits of salt; rub it with a feather or piece of flannel, taking care not to let the spirit reach the fingers or clothes; in four or five minutes, wash it off with water.

Or, mix a teaspoonful of burnt alum, powdered, with a quarter of an ounce of oxalic acid, in half a pint of cold water; to be used by wetting a rag with it, and rubbing it on the ink-spots.

Or, crumple a piece of blotting-paper, so as to make it firm, wet it, and with it rub the ink-spot firmly and briskly, when it will disappear; and the white mark from the operation may be immediately removed by rubbing it with a cloth.

43. *Or:*—Dilute ½ a teaspoonful of oil of vitriol with a large spoonful of water, and touch the part with a feather; watch it, for if it stays too long, it will leave a white mark. It is, therefore, better to rub it quickly, and repeat if not quite removed.

44. *To clean Chairs.*—Scrape down one or two ounces of beeswax, put it into a jar, and pour as much spirits of turpentine over it as will cover it: let it stand till dissolved. Put a little upon a flannel or bit of green baize, rub it upon the chairs, and polish them with a brush. A very small portion of finely-powdered white rosin may be mixed with the turpentine and wax.

45. *To clean and restore the Elasticity of Cane Chair Bottoms, Couches, &c.*—Turn up the chair bottom, &c., and with hot water and a sponge wash the cane work well, so that it may be well soaked; should it be dirty, you must add soap; let it dry in the air, and you will find it as tight and firm as when new, providing the cane is not broken.

46. *Blacking for Leather Seats, &c.*—Beat well the yolks of two eggs, and the white of one; mix a tablespoonful of gin and a teaspoonful of sugar, thicken it with ivory black, add it to the eggs, and use as common blacking; the seats or cushions being left a day or two to harden.

47.—*To prevent Hinges Creaking.*—Rub them with soft soap, or a feather dipped in oil.

48. *Swallows' Nests.*—To prevent swallows building under eaves, or in window corners, rub the places with oil or soft soap.

49. *To clean Polished Grates and Irons.*—Make into a paste with cold water, four pounds of putty-powder and one of finely-powdered whiting; rub off carefully the spots from the irons, and with a dry clean duster rub the irons with the mixture always in the same direction till bright and clear. Plain dry whiting will keep it highly polished if well attended to every day. The putty mixture should be used only to remove spots.

50. *To clean the Back of the Grate, the inner Hearth, and the fronts of Cast-Iron Stoves.*—Mix black lead and whites of eggs well beaten together; dip a painter's brush, and wet all over, then rub it bright with a hard brush.

51. *To remove the Black from the Bright Bars of Polished Stoves in a few minutes.*—Rub them well with some of the fol-

lowing mixture on a bit of broadcloth; when the dirt is removed, wipe them clean, and polish with glass (not sand) paper.

52. *For Mixture :*—Boil slowly one pound of soft soap in two quarts of water to one quart. Of this jelly take three or four spoonfuls, and mix to a consistence with emery.

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53. *To clean Bright Stoves.*—There are many ways of cleaning a stove, but if the ornamental parts be neglected, rust will soon disfigure the surface, and lead to incalculable trouble. Emery dust, moistened into a paste with sweet oil, should be kept in a little jar; this should be applied on a bung, up and down, never crossways, until marks or burns disappear. A dry leather should then remove the oil, and a polish should afterwards be given with putty powder on a dry clean leather.

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54. *Another way to clean Grates.*–The best mixture for cleaning bright stove-grates is rotten-stone and sweet oil: they require constant attention, for, if rust be once suffered to make its appearance, it will become a toil to efface it. Polished fire-irons, if not allowed to rust by neglect, will require merely rubbing with leather; and the higher the polish, the less likely they are to rust. If the room be shut up for a time, and the grates be not used, to prevent their rusting, cover them with lime and sweet oil.

Bright fenders are cleaned as stoves; cast-iron fenders require black lead; they should not, however, be cleaned in the sitting-room, as the powdered lead may fly about and injure carpets and furniture. A good plan is to send cast-iron fenders to be bronzed or lackered by the iron-monger; they will then only require brushing, to free the dust from the ornamental work. The bright top of a fender should be cleaned with fine emery-paper.

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55. *To prevent Fire-Irons becoming Rusty.*—Rub them with sweet oil, and dust over them unslaked lime. If they be rusty, oil them for two or three days, then wipe them dry, and polish with flour emery, powdered pumice-stone, or lime. A mixture of tripoli with half its quantity of sulphur, will also remove rust; as will emery mixed with soft soap, boiled to a jelly. The last mixture is also used for removing the fire-marks from bright bars.

56. *To Color the Backs of Chimneys with Lead Ore.*—Clean them with a very strong brush, and carefully rub off the dust and rust; pound about a quarter of a pound of lead ore into a fine powder, and put it into a vessel with half a pint of vinegar, then apply it to the back of the chimney with a brush. When it is made black with this liquid, take a dry brush, dip it in the same powder without vinegar; then dry and rub it with this brush, till it becomes as shining as glass.

57. *To blacken the fronts of Stone Chimney-pieces.*—Mix oil-varnish with lamp-black, and a little spirit of turpentine to thin it to the consistence of paint. Wash the stone with soap and water very clean; then sponge it with clear water; and when perfectly dry, brush it over twice with this color, letting it dry between the times. It looks extremely well. The lamp-black must be sifted first.

58. *Composition that will effectually prevent Iron, Steel, &c., from rusting.*—This method consists in mixing, with fat oil varnish, four-fifths of well rectified spirit of turpentine. The varnish is to be applied by means of a sponge; and articles varnished in this manner will retain their metallic brilliancy, and never contract any spots of rust. It may be applied to copper, and to the preservation of philosophical instruments; which, by being brought into contact with water, are liable to lose their splendor, and become tarnished.

59. *To keep Arms and polished Metal from Rust.*—Dissolve once ounce of camphor in two pounds of hog's lard, observing to take off the scum; then mix as much black lead as will give the mixture an iron color. Fire-arms, &c., rubbed over with this mixture, and left with it on twenty-four hours, and then dried with a linen cloth, will keep clean for many months.

60. *To preserve Irons from Rust.*—Melt fresh mutton-suet, and smear over the iron with it while hot; then dust it well with unslaked lime pounded and tied up in a muslin. Irons so prepared will keep many months. Use no oil for them but salad-oil, there being water in all other.

Fire-irons should be wrapped in baize, and kept in a dry place, when not used.

61. *To prevent polished Hardware and Cutlery from taking Rust.*—Case-knives, snuffers, watch-chains, and other small articles made of steel, may be preserved from rust, by being carefully wiped after use, and then wrapped in coarse brown paper, the virtue of which is such, that all hardware goods from Sheffield, Birmingham, &c., are always wrapped in the same.

62. *Another way.*—Beat into three pounds of fresh hog's-lard two drachms of camphor till it is dissolved; then add as much black lead as will make it the color of broken steel. Dip a rag in it, and rub it thick on the stove, &c., and the steel will never rust, even if wet. When it is to be used, the grease must be washed off with hot water, and the steel be dried before polishing.

63. *To take Rust out of Steel.*—Cover the steel with sweet oil well rubbed on it, and in forty-eight hours use unslaked lime finely powdered, to rub until all the rust disappears.

64. *To clean Plate.*—See that the plate is quite free from grease, by having been washed, if necessary, in warm soap and water. Then mix some whiting with water, and with a sponge rub it well on the plate, which will take the tarnish off, making use of a brush not too hard, to clean the intricate parts. Next, take some rouge-powder, mix it with water to about the thickness of cream, and with a small piece of leather (which should be kept for that purpose only) apply the rouge. This, with a little rubbing, will produce a most beautiful polish. This is the actual manner in which silversmiths clean their plate.

65. *The common method of cleaning Plate.*—First wash it well with soap and warm water; when perfectly dry, mix together a little whiting and sweet oil, so as to make a soft paste; then take a piece of flannel, rub it on the plate, then with a leather, and plenty of dry whiting, rub it clean off again; then with a clean leather and a brush, finish it.

66. *An easy way to clean Plate.*—A flannel and soap, and soft water, with proper rubbing, will clean plate nicely. It should be wiped dry with a good-sized piece of soft leather.

67. *Plate Powder.*—In most of the articles sold as plate pow-

ders, under a variety of names, there is an injurious mixture of quicksilver, which is said sometimes so far to penetrate and render silver brittle, that it will even break with a fall. Whiting, properly purified from sand, applied wet, and rubbed till dry, is one of the easiest, safest, and certainly the cheapest of all plate powders: jewelers and silversmiths, for small articles, seldom use any thing else. If, however, the plate be boiled a little in water, with an ounce of calcined hartshorn in powder to about three pints of water, then drained over the vessel in which it was boiled, and afterwards dried by the fire, while some soft linen rags are boiled in the liquid till they have wholly imbibed it; these rags will, when dry, not only assist to clean the plate, which must afterwards be rubbed bright with leather, but also serve admirably for cleaning brass locks, finger-plates, &c.

68. *To cleanse Gold.*—Wash the article in warm suds made of delicate soap and water, with ten or fifteen drops of sal-volatile. (The sal-volatile will render the metal brittle. This hint may be used or left at pleasure.)

69. *To clean Brass and Copper.*—Rub it over slightly with a bit of flannel dipped in sweet oil; next, rub it hard with another bit dipped in finely-powdered rotten stone; then make it clean with a soft linen cloth, and finish by polishing it with a plate-leather.

70. *Obs.*—The inside of brass or copper vessels should be scoured with fullers' earth and water, and set to dry, else the tinning will be injured.

71. *Another way to clean Brass and Copper.*—Put one penny-worth of powdered rotten stone into a dry, clean quart bottle; nearly fill it up with cold soft water; shake it well, and add one penny-worth of vitriol. Rub it on with a rag, and dry it with a clean, soft cloth, and then polish it with a plate-leather. This mixture will keep for a long time, and becomes better the longer it is kept. But the first method gives the most lasting polish, as well as the finest color.

72. *To clean Brass Ornaments.*—Wash the ornament in a strong solution of boiled roche-alum, in the proportion of an

ounce to a pint of water. When dry, rub them with fine tripoli powder.

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73. *Polishing Paste for Britannia metal, tins, brasses, and coppers*, is composed of rotten-stone, soft soap, and oil of turpentine.

The stone must be powdered and sifted through a muslin or hair sieve: mix with it as much soft soap as will bring it to the stiffness of putty: to about half-a-pound of this, add two ozs. of oil of turpentine. It may be made up in balls, or put in gallipots; it will soon become hard, and will keep any length of time. Method of using:—The articles to be polished should be perfectly freed from grease and dirt. Moisten a little of the paste with water, smear it over the metal, then rub briskly with dry rag or wash-leather, and it will soon bear a beautiful polish.

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74. *To clean Britannia metal.*—Rub the article with a piece of flannel moistened with sweet oil; then apply a little pounded rotten-stone or polishing paste with the finger, till the polish is produced; then wash the article with soap and hot water, and when dry, rub with soft wash-leather, and a little fine whiting.

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75. *To clean Pewter.*—Scour it with fine white sand, and strong ley made with wood-ashes, soda, or pearl-ash; then rinse the pewter in clean water, and set it to drain. The best method, however, is to use the oil of tartar and sand.

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76. *To clean Tin Covers.*—Get the finest whiting; mix a little of it powdered with the least drop of sweet oil, rub the covers well with it, and wipe them clean; then dust over them some dry whiting in a muslin bag, and rub bright with dry leather. This last is to prevent rust, which the cook must guard against by wiping them dry, and putting them by the fire when they come from the parlor; for if but once hung up damp, the inside will rust.

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77. *Safe Method of cleaning Tea-urns.*—In an earthen gallipot put one ounce of bees'-wax, cut up in small pieces; set it by the fireside, until perfectly melted and quite hot, very near boiling heat; remove the jar from the fire, and stir into it rather

less than a table-spoonful of salad oil, and rather more than a table-spoonful of best spirits of turpentine; continue stirring till well mixed and nearly cold; fill the urn with boiling water so as to make it thoroughly hot, apply a thin coating of the above mixture, and rub with a soft cloth, till all stickiness is removed, then polish with a clean rag and a little crocus powder.

N. B.—The crocus powder must be very fine, so as to sift through muslin.

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78. *To clean Gilt or Lacquered Articles.*—Brush them with warm soap and water, wipe them, and set them before the fire to dry; finish with a soft cloth. By this simple means may be cleaned ormolu and French gilt candelabra, branches, and lamps; mosaic gold and gilt jewelry, toys and ornaments. Care is requisite in brushing the dirt from fine work, and finishing it quite dry. Any thing stronger than soap, as acids, pearl-ash, or soda, will be liable to remove the lacquer.

To polish inlaid Brass Ornaments.—Mix powdered tripoli and linseed oil, and dip in it a piece of hat, with which rub the brass; then, if the wood be ebony, or dark rosewood, polish it with elder ashes in fine powder.

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79. *To clean Lacquer.*—Make a paste of starch, one part; powdered rotten-stone, twelve parts; sweet oil, two parts; oxalic acid, one part; water to mix.

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80. *To clean Door-plates.*—To clean brass-plates on doors, so as not to injure the paint at the edges, cut the size of the plate out of a large piece of mill-board, place it against the door, and rub the plate with rotten-stone, or crocus and sweet oil, upon leather.

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81. *To clean Mother-o'-pearl.*—Wash in whiting and water. Soap destroys the brilliancy.

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82. *To clean Knives and Forks.*—Hold the knives straightly on the board, and pass them backward and forward in as straight a line as possible. Forks should be cleaned with a stick covered with buff-leather, and finished with a brush. The best article for cleaning is the powder of the well-known Flanders bricks.

83. *Of Knife-boards.*—A knife-board properly made, should consist of an inch-deal-board, five feet long, with a hole at one end by which it is to be hung up when not in use. At this end, the left hand, and close to the front edge, should be fastened a stiff brush for cleaning forks. At the other end should be a box, with the open end towards the hand, and a sliding lid; this should contain a bath-brick, leathers for forks, &c., so that the materials for cleaning may be shut in and hung up with the board.

Or, cover a smooth board free from knots, with thick buff-leather, on which spread, the thickness of a shilling, the following paste:—emery, one ounce; crocus, three ounces; mixed with lard or sweet oil. This composition will not only improve the polish, but also the edges of the knives.

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84. *To re-fasten the loose handles of Knives and Forks.*—Make a cement of common brick-dust and rosin, melted together. Seal-engravers understand this receipt.

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85. *Metal Kettles and other Vessels.*—The crust on boilers and kettles arises from the hardness of the water boiled in them. Its formation may be prevented by keeping in the vessel a marble, or a potato tied in a piece of linen.

Tin-plate vessels are cleanly and convenient; but, unless carefully dried after washing, they will soon rust in holes.

Iron coal-scoops are liable to rust from the damp of the coals.

If cold water be thrown on cast-iron when hot (as the back of a grate), it will crack. Cast-iron articles are brittle, and cannot be repaired.

The tinning of copper-saucepans should be kept perfect, clean, and dry: in which case they may be used with safety.

Copper pans, *if put away damp*, will become coated with poisonous crust, or verdigris, as will also a boiling-copper, if left wet. When used for cooking, and not properly cleaned, copper vessels have occasioned death to persons partaking of soup which had been warmed in a pan infected with verdigris.

Untinned copper or brass vessels are at all times dangerous: it is absurd to suppose, that if the copper or brass pan be scoured bright and clean, there is little or no danger, for this makes but a trifling difference; such vessels for culinary purposes ought to be banished for ever from the kitchen.

A polished silver or brass tea-urn will keep the water hotter

than one of a dull brown color, such as is most commonly used. The more of the surface of a kettle that is polished, the sooner will water boil in it, as the part coated with soot drives off rather than retains heat.

A polished metal tea-pot is preferable to one of earthenware; because the earthen pot retains the heat only one-eighth of the time that a silver or polished metal pot will; consequently, the latter will best *draw* the tea.

A German saucepan is best adapted for boiling milk in: this is a saucepan glazed with white earthenware, instead of being tinned in the usual manner; the glaze prevents the tendency to burn, which, it is well known, milk possesses.

A stewpan, made as the German saucepan, is preferable to a metal preserving-pan; simple washing keeps it sweet and clean, and neither color nor flavor can by any chance be communicated to the article boiled in it.

Ornamental furniture, inlaid with brass or buhl, should not be placed very near the fire, as the metal when it becomes warm expands, and, being then too large for the space in which it was laid, starts from the wood.

"German silver" will not rust; but it does not contain a particle of silver, it being only white copper. If left in vinegar, or any acid mixture, it will become coated with verdigris. Salt should never be left in silver cellars, else the metal will be much injured.

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86. *To clean Glasses.*—Glasses should be first washed in warm clean soap-suds, and rinsed in fresh cold water; wipe off the wet with one cloth, and finish them with another.

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87. *Cleaning Decanters.*—Those encrusted with dregs of port wine, can be readily freed from stain by washing them with the refuse of the teapot, leaves and all. Dip the decanter into a vessel containing warm water, to prevent the hot tea-leaves from cracking the glass, then empty the teapot into the decanter, and shake it well. The *tannin* of the tea has a chemical affinity for the *crust* on the glass.

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88. *To clean Decanters.*—Put into them broken egg-shells, pieces of coarse brown or blotting paper, with pearlash, and nearly fill them with lukewarm water; shake them well for a few minutes, or, if very dirty, leave them for some hours, when

rinse the decanters with cold water. The settlement of the crust of wine in decanters, may be best prevented by rinsing at night, with cold water, all the decanters used during the day. To clean the outer work of decanters, rub it with a damp sponge dipped in whiting; then brush it well, rinse the vessel in cold water, drain, and finish with a fine dry cloth.

89. *To remove Crust from Glass.*—It often happens that glass vessels used for flowers and other purposes, receive an unsightly crust hard to be removed by scouring. The best method is to wash it with a little diluted spirit of salts, which will soon loosen it.

90. *To cleanse Bottles.*—To cleanse bottles with bad smells, put into them pieces of blotting or brown paper, and fill up with water; shake the bottles, and leave them for a day or two, when, if they be not sweetened, repeat the process, and rinse with pure water.

91. *To restore the Lustre of Glasses tarnished by Age or Accident.*—Strew on them powdered fuller's-earth, carefully cleared from sand, &c., and rub them carefully with a linen cloth. Oxide of tin (putty) would perhaps be better.

92. *To clean China.*—*China* is best cleaned, when very dirty, with finely-powdered fuller's-earth and warm water; afterwards rinsing it well in clean water. A little clean soft soap may be added to the water instead of fuller's-earth. The same plan is recommended for cleaning glass.

93. *To clean Alabaster.*—Remove any spots of grease with spirit of turpentine: then dip the article in water for about ten minutes, rub it with a painter's brush and let it dry; finish by rubbing it with a soft brush dipped into dry and fine plaster of Paris.

94. *To bleach Ivory.*—Ivory that has become discolored, may be brought to a pure whiteness by exposing it to the sun under glasses; having first brushed the ivory with pumice-stone, burnt and made into a paste with water. To conceal the cracks in antique ivory, brush out the dust with warm water and soap, and then place the ivory under glass. It should be daily ex-

posed to the sun, and turned from time to time, that it may become equally bleached.

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95. *Glazed Vessels.*—The glazing of stone ware is sometimes very imperfect: to test it, nearly fill the vessel with vinegar, into which put some fat of beef, salted; boil for half an hour, and set it by for a day, when, if the glazing be imperfect, small black particles of lead will be seen at the bottom of the vessel.

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96. *Use of Candle Snuffs for cleaning Glass.*—Candle snuffs are generally thrown away as useless; they are, however, of great utility for cleaning mirrors and windows, especially the former. For this purpose take a small quantity of the burnt snuffs and rub them with a soft cloth upon the surface of the mirror. In a short time a splendid polish will appear, superior to that obtained by other means. We know those who clean the whole of the windows in a large house with snuffs; and we are told that not only are the windows cleaned much better but also much quicker than by the ordinary methods.

A Razor Strop Paste is also made of candle-snuffs, and answers very well. It consists in simply rubbing a small quantity of the snuffs upon the strop; this imparts a keener edge to the razor than when no such paste is employed. Mechi's celebrated Magic Razor Strop Paste is certainly an excellent article, but we question whether it be much superior to the ordinary and common-place substance now recommended.

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97. *To loosen the Glass Stopples of Smelling Bottles and Decanters.*—With a feather rub a drop or two of olive oil round the stopple, close to the mouth of the bottle or decanter, which must be then placed before the fire, at the distance of a foot or eighteen inches; in which position the heat will cause the oil to spread downward between the stopple and the neck. When the bottle or decanter has grown warm, gently strike the stopple on one side, and on the other, with any light wooden instrument; then try it with the hand. If it will not yet move, place it again before the fire, adding, if you choose, another drop of oil. After a while strike again as before; and by persevering in this process, however tightly the stopple may be fastened in, you will at length succeed in loosening it.

98. *Or*, knocking the stopper gently with a piece of wood, first on one side, then on the other, will generally loosen it. If this method does not succeed, a cloth wetted with hot water and applied to the neck, will sometimes expand the glass sufficiently to allow the stopper to be easily withdrawn.

99. *Crockery and Glass.*—Crockery and glass, to be used for holding hot water, are best seasoned by boiling them, by putting the articles in a saucepan of cold water over the fire, and letting the water just boil; the saucepan should then be removed, and the articles should be allowed to remain in it till the water is cold. Some kind of pottery is best seasoned by soaking in cold water.

Choose thin rather than thick glasses, as the thin glass is less likely to be broken by boiling water than that which is thicker; for, thin glass allows the heat to pass through it in least time. The safest plan is to pour boiling water very slowly into cold glasses.

As boiling water will often break cold glass, so a cold liquid will break hot glass; thus wine, if poured into decanters that have been placed before the fire, will frequently break them.

Glass dishes and stands made in moulds are much cheaper than others, and they have a good appearance, if not placed near cut-glass.

Lamp-glasses are often cracked by the flame being too high when they are first placed round it; the only method of preventing which is to lower the flame before the glass is put on the lamp, and to raise the flame gradually as the glass heats.

100. *Polished Tea Urns preferable to varnished ones.*—Polished tea urns may be kept boiling with a much less expense of spirits of wine, than such as are varnished; and the cleaner and brighter the dishes, and covers for dishes, which are used for bringing food to table, and for keeping it hot, the more effectually will they answer that purpose.

101. *Japanned Candlesticks and Tea-Trays, and Paper work.*—To remove grease from these, let the water be just warm enough to melt it; then wipe them with a cloth, and if they look smeared, sprinkle a little flour on them, and wipe it clean off. Wax candles should not be burned in the candlesticks, as the wax cannot be taken off without injuring the varnish.

Paper work is liable to break if let fall, or if boiling water be poured on it.

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102. *To clean Lamps.*—Bronzed lamps should be wiped carefully; if oil be frequently spilled over them, it will cause the bronzing to be rubbed off sooner than it would disappear by wear. Brass lamps are best cleaned with crocus or rotten-stone and sweet oil. Lackered lamps may be washed with soap and water, but should not be touched with acid or very strong ley, else the lacker will soon come off. When lamps are foul inside, wash them with potash and water, rinse them well, set them before the fire, and be sure they are dry before oil is again put into them.

Lamps will have a less disagreeable smell, if, before using, the cottons be dipped in hot vinegar, and dried.

To clean ground-glass shades, wash the insides carefully with weak soap and water, lukewarm, rub them very lightly and dry with a soft cloth.

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103. *To make economical Wicks for Lamps.*—When using a lamp with a flat wick, if you take a piece of clean cotton stocking, it will answer the purpose as well as the cotton wicks which are sold in the shops.

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104. *Wax Candles.*—Should they get dirty and yellow, wet them with a piece of flannel dipped in spirits of wine.

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105. *Blowing out a Candle.*—There is one small fact in domestic economy which is not generally known; but which is useful, as saving time, trouble, and temper. If a candle be blown out holding it above you, the wick will not smoulder down, and may therefore be easily lighted again; but if blown upon downwards, the contrary is the case.

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106. *Plain Hints about Candles.*—Candles improve by keeping a few months. Those made in winter are the best. The most economical, as well as the most convenient plan, is to purchase them by the box, keeping them always in a cool, dry place. If wax candles become discolored or soiled, they may be restored by rubbing them over with a clean flannel slightly dipped in spirits of wine. Candles are sometimes difficult to light. They will ignite instantly, if, when preparing them for

the evening, you dip the top in spirits of wine, shortly before they are wanted. Light them always with a match, and do not hold them to the fire, as that will cause the tops to melt and drip. Always hold the match to the side of the wick, and not over the top. If you find the candles too small for the candlesticks, always wrap a small piece of white paper round the bottom end, not allowing the paper to appear above the socket. Cut the wicks to a convenient length for lighting (nearly close); for if the wick is too long at the top, it will be very difficult to ignite, and will also bend down, and set the candle to running. Glass receivers, for the droppings of candles, are very convenient, as well as ornamental. The pieces of candles that are left each evening should be placed in a tin box kept for that purpose, and used for bed lights.

107. *To make an improved Candle.*—Make the wicks about half the usual size, and wet them with spirits of turpentine; dry them, before dipping, in the sunshine, or in some favorable place, and the candles will be more durable, emit a steadier and clearer blaze, and be in every way superior to those made in the ordinary way.

108. *Quicksilver.*—Tallow will take up quicksilver. Vinegar kills it.

109. *To give any Close-grained Wood the appearance of Mahogany.*—The surface of the wood must first be planed smooth, and then rubbed with weak aquafortis; after which it is to be finished with the following varnish:—To three pints of spirit of wine is to be added four ounces and a half of dragon's blood and an ounce of soda, which have been previously ground together; after standing some time, that the dragon's blood may dissolve, the varnish is to be strained, and laid on the wood with a soft brush. This process is to be repeated, and then the wood possesses the perfect appearance of mahogany. When the polish diminishes in brilliancy, it may be speedily restored by rubbing the article with linseed oil.

110. *To Darken Mahogany.*—Drop a nodule of lime in a basin of water, and wash the mahogany with it.

111. *To make Imitation Rosewood.*—Brush the wood over with a strong decoction of logwood, while hot; repeat this pro-

cess three or four times; put a quantity of iron-filings amongst vinegar; then with a flat open brush, made with a piece of cane, bruised at the end, or split with a knife, apply the solution of iron-filings and vinegar to the wood in such a manner as to produce the fibres of the wood required. After it is dry, the wood must be polished with turpentine and bees'-wax.

112. *Imitation of Ebony.*—Pale-colored woods are stained in imitation of ebony by washing them with, or steeping them in a strong decoction of logwood or galls, allowing them to dry, and then washing them over with a solution of the sulphate or acetate of iron. When dry, they are washed with clean water, and the process repeated, if required. They are, lastly, polished or varnished.

113. *Cheap Coloring for Rooms.*—Boil any quantity of potatoes, bruise them, and pour on them boiling water until a pretty thick mixture is obtained, which is to be passed through a sieve; then mix whiting with boiling water, and add it to the potato mixture. To color it, add either of the ochres, lamp-black, &c.

114. *Cheap Paint.*—Tar mixed with yellow ochre makes an excellent green paint, for coarse wood-work, iron fencing, &c.

115. *Weather-proof Composition.*—Mix a quantity of sand with double the quantity of wood ashes, well sifted, and three times as much slackened lime; grind these with linseed oil, and use the composition as paint; the first coat thin, the second thick; and in a short time it will become so hard as to resist weather and time.

Or, slake lime in tar, and into it dip sheets of the thickest brown paper, to be laid on in the manner of slating.

116. *Artificial Marble.*—Soak in a solution of alum a quantity of plaster of Paris. Bake it in an oven, and grind it to a powder. When wanted, mix it with water to about the consistency of plaster. It sets into an exceedingly hard composition, and takes a high polish. It may be mixed with various colored minerals or ochres to represent the various marbles, and is a valuable receipt.

117. *To give Wooden Stairs the Appearance of Stone.*—Paint the stairs, step, by step, with white paint, mixed with strong drying oil. Strew it thick with silver sand.

It ought to be thoroughly dry next morning, when the loose sand is to be swept off. The painting and sanding is to be repeated, and when dry, the surface is to be done over with pipe-clay, whiting, and water; which may be boiled in an old saucepan, and laid on with a bit of flannel, not too thick, otherwise it will be apt to scale off.

A penny cake of pipe-clay, which must be scraped, is the common proportion to half a lump of whiting.

The pipe-clay and whiting is generally applied once a week, but that might be done only as occasion requires.

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118. *Lime for Cottage Walls, &c.*—Take a stone or two of unslaked white lime, and dissolve it in a pail of cold water. This, of course, is whitewash. The more lime used, the thicker it will be; but the consistence of cream is generally advisable. In another vessel dissolve some green vitriol in hot water. Add it, when dissolved, to the whitewash, and a buff is produced. The more vitriol used, the darker it will be. Stir it well up, and use it in the same way as whitewash, having first carefully got off all the old dirt from the walls. Two or three coats are usually given. For a border at top and base, use more vitriol, to make it darker than the walls. If you have stencil-plates, you can use it with them. This is cheap, does not rub off like ochre, and is pure and wholesome, besides being disinfecting.

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119. *A White for Inside Painting, which dries in about four hours, and leaves no smell.*—Take one gallon of spirits of turpentine, and two pounds of frankincense; let them simmer over a clear fire till dissolved, then strain and bottle it. Add one quart of this mixture to a gallon of bleached linseed oil, shake them well together, and bottle them likewise. Grind any quantity of white-lead very fine with spirits of turpentine, then add a sufficient quantity of the last mixture to it, till you find it fit for laying on. If it grows thick in working, it must be thinned with spirit of turpentine; it gives a flat, or dead white.

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120. *A Green Paint for Garden Stands, Trellisses, &c.*—Take mineral green, and white lead ground in turpentine; mix up the quantity you wish with a small quantity of turpentine.

varnish; this serves for the first coat; for the second, put as much varnish in your mixture as will produce a good gloss; if you desire a brighter green, add a small quantity of Prussian blue, which will much improve the beauty of the color.

121. *Cheap and beautiful Green.*—The cost of this paint is less than one-fourth of oil color, and the beauty far superior. Take four pounds of Roman vitriol, and pour on it a tea-kettle-ful of boiling water; when dissolved, add two pounds of pearl-ash, and stir the mixture well with a stick until the effervescence cease; then add a quarter of a pound of pulverized arsenic, and stir the whole together. Lay it on with a paint brush, and if the wall has not been painted before, at least two, or even three coats, will be requisite. If a pea-green is required, put in less, and if an apple-green, more, of the yellow arsenic.

122. *To Destroy the Smell of Fresh Paint.*—Mix chloride of lime with water, with which damp some hay, and strew it upon the floor.

123. *To take the Smell of Paint from Rooms.*—Let three or four broad tubs, each containing about eight gallons of water, and one ounce of vitriolic acid, be placed in the new painted room near the wainscot; this water will absorb and retain the effluvia from the paint in three days, but the water should be renewed each day during that time.

124. *To remove Unpleasant Odors.*—The unpleasant smell of new paint is best removed by time and atmospheric ventilation; but tubs of water placed in the apartment, will act more rapidly; with this inconvenience, however, that the gloss of the paint will be destroyed. Unpleasant smells from water-closets, or all articles of furniture connected with them, may be modified by the application of lime-water, to which may be added the soap-suds that have been used in washing, which neutralize the pungently offensive salts; a little quick-lime put into a night-chair will destroy all disagreeable effluvia. Aromatic pastiles of the following composition may be burned with great success: take of camphor, flowers of benzoin, powdered charcoal, powdered cascarilla bark, powdered Turkey myrrh, and powdered nitre, each equal quantities; beat them with syrup sufficient to form a mass, and divide into pastiles of a conical shape. They

may be mixed up with spirit of turpentine (the rectified oil) or anything that is inflammable. Syrup does best, as it is most adhesive.

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125. *To prevent disagreeable Smells from Privies, Night Chairs, &c.*—Milk of lime (water in which lime has been slaked, and which is whitened by the fine particles of that substance) must be mixed with a ley of ashes, or soapy water that has been used in washing, then thrown into the sink of the privy; it will destroy the offensive smell. By these means, for the value of a few pence, any collection of filth whatever may be neutralized.

For the night-chair of sick persons, put within the vessel half a pound of quicklime, half an ounce of powdered sal-ammoniac, and water one pint: this will prevent any disagreeable odor.

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126. *Remarks.*—Quicklime, or even lime just slaked, answers the purpose without any addition. It is the only thing used in camps, particularly in hot countries, to keep the ditches from creating contagion.

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127. *To clean Books or Prints.*—Ink spots may be removed by oxalic acid dissolved in water, and carefully applied with a hair pencil. To remove oil or grease, warm the spot, lay over it blotting paper, and upon it the heated blade of a knife, when the blotting-paper will absorb the grease; then apply spirits of turpentine, with a hair pencil, and restore the whiteness of the paper with spirits of wine.

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128. *To preserve Books.*—A few drops of any perfumed oil will secure libraries from the consuming effects of mouldiness and damp. Russian leather which is perfumed with the tar of the birch-tree, never moulds; and merchants suffer large bales of this article to lie in the London Docks in the most careless manner, knowing that it cannot sustain any injury from damp.

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129. *To clean Oil Paintings.*—Clean the picture well with a sponge, dipped in warm beer; after it has become perfectly dry, wash it with a solution of the finest gum-dragon, dissolved in pure water. Never use blue starch, which tarnishes and eats out the coloring; nor white of eggs, which casts a thick varnish over pictures, and only mends bad ones by concealing the faults of the coloring.

130. *To Light a Coal Fire.*—A considerable saving of time and trouble might often be effected, if housemaids would attend to the following rules in lighting a fire:—Clear the grate well from ashes and cinders; then lay at the bottom of it a few lumps of *fresh coal*, about the size of ducks' eggs, so as not wholly to obstruct the air passing between the bars on which they are placed. This done, put a small quantity of waste paper or shavings next upon the coal; then a few sticks or pieces of split wood placed carefully above it, so that they may not project between the bars; then a layer of the cinders you have before taken from the grate; and next a few lumps of coal on the top. Take care to *complete* this process before applying the light, which may easily be done afterwards by means of a lucifer match, and you will seldom fail to have a good fire in a few minutes.

Nothing is easier than to light a fire in the way here recommended, but the coals and cinders must be laid in place by hand, and not thrown in anyhow with the shovel. If the kindling wood be green or damp, it should be dried over night, as a more miserable task cannot be attempted than to light a fire with damp materials.

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131. *Another Way.*—To light a fire from one already kindled, put three or four pieces of charcoal between the bars of the grate; then lay a few pieces of fresh coal upon the bottom of the grate in which the second fire is to be made, and place upon them, crosswise, the lighted pieces of charcoal; cover them with pieces of fresh coal, and blow them with the hand-bellows, when the charcoal will set fire to the fresh coal, and a brisk fire will be made in a few minutes. On the contrary, if we light a fire with wood, some time must elapse before it can safely be blown.

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132. *Economy in Fuel.*—A saving of nearly one-third of the coal consumed may be made by the following easy means:—Let the coal ashes, which are usually thrown into the dust bin, be preserved in a corner of the coal hole, and make your servants add to them from your coal heap an equal part of the small coal or slack, which is too small to be retained in the grate, and pour a small quantity of water upon the mixture. When you make up your fire, place a few round coals in front, and throw some of this mixture behind; it saves the trouble of sifting your ashes, gives a warm and pleasant fire, and a very small part only will remain unburnt.

133. *Fire Balls.*—Mix one bushel of small coal, or saw-dust, or both, with two bushels of sand, and one bushel and a half of clay; make the mixture into balls with water, and pile them in a dry place, to harden them. A fire cannot be lighted with these balls; but when it burns strong, put them on above the top bar, and they will keep up a strong heat.

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134. *To prevent the ill effects of Charcoal.*—Set over the burning charcoal a vessel of boiling water, the steam of which will prevent danger from the fumes.

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135. *Method of sweeping Chimneys without employing Children, and the danger attending the old Method pointed out.*—Procure a rope for the purpose, twice the length of the height of the chimney; to the middle of it tie a bush (broom furze, or any other), of sufficient size to fill the chimney; put one end of the rope down the chimney (if there be any windings in it, tie a bullet or round stone to the end of the rope), and introduce the wood end of the bush after the rope has descended into the chamber; then let a person pull it down. The bush, by the elasticity of its twigs, brushes the sides of the chimney as it descends, and carries the soot with it. If necessary, the person at the top, who has hold of the other end of the rope, draws the bush up again; but, in this case, the person below must turn the bush, to send the wood end foremost, before he calls to the person at top to pull it up.

Many people, who are silent to the calls of humanity, are yet attentive to the voice of interest: chimneys cleansed in this way never need a tenth part of the repairs required where they are swept by children, who being obliged to work themselves up by pressing with their feet and knees on one side, and their back on the other, often force out the bricks which divide the chimneys. This is one of the causes why, in many houses, a fire in one apartment always fills the adjoining ones with smoke, and sometimes even the neighboring house. Nay, some houses have even been burnt by this means; for a foul chimney, taking fire, has been frequently known to communicate, by these apertures, to empty apartments, or to apartments filled with timber, where, of course, it was not thought necessary to make any examination, after extinguishing the fire in the chimney where it began.

136. *To revive a dull Fire.*—Powdered nitre, strewed on the fire, is the best bellows that can be used.

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137. *Fires, Stoves, &c.*—It is wasteful to wet small coal, though it is commonly thought to make a fire last longer: in truth, it wastes the heat, and for a time makes a bad fire.

A close stove intended to warm an apartment should not have a polished surface, else it will keep in the heat; whereas, if of rough and unpolished cast iron, the heat will be dispersed through the room.

Long, shallow grates, are uneconomical, as the body of the coal in them is not soon heated, and requires to be oftener replenished to keep up the fire.

A good fire should be bright without being too hot: the best and quickest mode of making up a neglected fire is to stir out the ashes, and with the tongs fill up the spaces between the bars with cinders or half-burnt coals: this method will soon produce a glowing fire. If coke can be mixed with coals, the fire will require extra attention: coke, however, makes too much dust for fires in the best rooms.

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138. *Water.*—Hard water by boiling may be brought nearly to the state of soft. A piece of chalk put into spring water will soften it.

Rain, or the softest water, is better adapted than any other for washing and cleaning; but it must be filtered for drinking in large towns, as it becomes impure from the roofs and plaster of houses. The best water has the greatest number of air bubbles when poured into a glass. Hard water will become thick and foul sooner than soft water.

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139. *To purify Water for drinking.* — Filter river water through a sponge, more or less compressed, instead of stone or sand, by which the water is not only rendered more clear, but wholesome; for sand is insensibly dissolved by the water, so that in four or five years it will have lost a fifth part of its weight. Powder of charcoal should be added to the sponge when the water is foul, or fetid. Those who examine the large quantity of terrene matter on the inside of tea-kettles will be convinced all water should be boiled before drunk.

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140. Or, take a large flower-pot, and put either a piece of sponge or some cleanly-washed moss over the hole at the bot-

tom. Fill the pot three-quarters with a mixture of equal parts of clean sharp sand, and charcoal in pieces the size of peas. On this lay a piece of linen or woollen cloth, large enough to hang over the sides of the pot. Pour the water to be filtered into the basin formed by the cloth, and it will come out pure through the sponge or moss at the bottom.

141. *To purify River, or Muddy Water.*—Dissolve half an ounce of alum in a pint of warm water, and stirring it about in a puncheon of water from the river, all the impurities will soon settle to the bottom, and in a day or two it will become quite clear.

142. *To purify muddy Water of Rivers or Pits.*—Make a number of holes in the bottom of a deep tub; lay some clean gravel thereon, and above this some clean sand; sink this tub in the river or pit, so that only a few inches of the tub will be above the surface of the water; the river or pit water will filter through the sand, and rise clear through it to the level of the water on the outside, and will be pure and limpid.

143. *Method of making putrid Water sweet in a Night's Time.*—Four large spoonfuls of unslaked lime put into a puncheon of ninety gallons of putrid water, at sea, will, in one night, make it as clear and sweet as the best spring water just drawn: but unless the water is afterwards ventilated sufficiently to carbonize the lime, it will be a lime water. Three ounces of pure unslaked lime should saturate ninety gallons of water.

144. *Lead Cisterns.—Lead Cisterns* are unsafe to hold water for culinary purposes: if the water has stood in them several days undisturbed, a small white coating may be observed at the upper edge of the water: on any addition of water, this coating is washed off, and if there be the slightest acidity in the vessel, this coating will be dissolved in the water, and thus a poison be conveyed into the stomach. To prevent this, the insides of lead cisterns should be occasionally examined and cleared out.

145. *To prevent the freezing of Water in Pipes in the Winter Time.*—By tying up the ball-cock with straw or flannel during

the frost, the freezing of pipes will often be prevented; in fact, it will always be prevented where the main pipe is higher than the cistern or other reservoir, and the pipe is laid in a regular inclination from one to the other, for then no water can remain in the pipe; or if the main is lower than the cistern, and the pipe regularly inclines, upon the supply's ceasing, the pipe will immediately exhaust itself. When water is in the pipes, if each cock be left a little dripping, the circulation of the water will prevent its freezing in the pipes.

146. *To preserve Water and Meat from Putrefaction in long Voyages.*—The crews of two Russian ships, which sailed round the world, were extremely healthy. During the whole three years of their voyage only two men died of the crew of the Neva, and the Naveshda did not lose a single man. It is known that their fresh water was preserved in charred casks, but it is not so generally known that they used the same precaution for preserving their salted provisions. The beef they carried out with them tasted as pleasantly upon their return, as it did three years before, when first salted.

147. *To make Sea-water fit for washing Linen.*—Soda put into sea-water renders it turbid; the lime and magnesia fall to the bottom. Therefore, to make sea-water fit for washing linen, put in soda enough as not only to effect a precipitation of these earths, but to render the water sufficiently alkaline.

148. *Steam.*—When the steam from a tea-kettle appears cloudy, it should be taken from the fire, as the water is then fast boiling away; the steam when the water first boils being quite transparent, so as scarcely to be seen near the mouth of the spout. The top of the kettle should be kept bright, as a polished surface keeps in the heat.

149. *To clean a Carriage.*—Wash the body and wheels with a mop, brush, and plenty of water. Then blacken and clean all the straps and leather, first cleaning the brass or other ornaments as those on harness. Next brush the inside lining, clean the glasses, and clean and trim the lamps. Stains may be removed from panels by rubbing them with sweet oil on baize. The wheels should be occasionally greased or oiled, and the linchpins examined.

150. *For Coach Wheels.*—Melt over a slow fire one pound of lard, and half a pound of black lead in powder, stirring them well; remove the mixture from the fire, and stir till cold.

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151. *Harness Makers' Jet.*—Take one drachm of indigo, a quarter of an ounce of isinglass, half an ounce of soft soap, four ounces of glue, one pennyworth of logwood raspings, and one quart of vinegar; boil the whole together over a slow fire, till reduced to one pint. A small quantity is then to be taken up on a piece of clean sponge, and thinly applied to harness, boots, &c., taking care that they are previously well cleaned.

N.B.—A small quantity of sulphate of iron (green vitriol) would perhaps greatly improve this.

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152. *To clean Harness.*—Having washed off the wet dirt, sponge the harness clean, and hang it up to dry. Next, brush it with a dry, hard brush, and clean the brass ornaments.

For this purpose, mix a quarter of a pint of turpentine, with two ounces of rotten-stone, two ounces of finely-powdered charcoal, and a quarter of a pint of droppings of sweet oil; apply this paste with leather, and polish it off with powdered charcoal.

Or, clean the brass ornaments with the following mixture, which is used in the Royal Mews: dissolve one ounce of oxalic acid in a pint of water, to which add a pint of naphtha. To give the brass-work a fine color, powder some sal-ammoniac, moisten it with water, and rub it upon the ornaments; then heat them over charcoal, and polish with dried bran and whiting.

Or, wash the brass-work with a strong solution of roche alum, and polish it with tripoli.

To restore the color of harness, clean it, and brush over it the following mixture:—boil half a pound of logwood chips in three quarts of soft water, to which add three ounces of galls bruised and one ounce of alum.

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153. *Oiling Old Leather.*—A practice is common of wetting harness, &c., before it is to be oiled, under the idea that it soaks in the oil better for wetting. No two things are less capable of union than oil and water. The leather appears soft after the above practice, but a dry day will soon show how hard the leather becomes when the water it has imbibed has evaporated, and how rotten the heart of the leather is, although the outside

appears yet oily. If leather be dry and then oiled, the quantity of oil consumed will tell whether the leather has absorbed the oil or not. If it have, it will last for years, if it be oiled thoroughly every spring. The most durable stuff to nail up garden trees, is leather soaked in oil, and then drained before use. Old shoes and harness will thus be of use when no longer of service to the body.

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154. *General Washing.*—Counterpanes, blankets, bed-hangings, &c., should be washed in summer, as they will then dry quickly, and be of good color.

By putting linen and cotton stockings to soak the night before they are to be washed, much soap and labor will be saved.

If clothes remain long dirty, they will not only require more soap and labor, but be much injured in washing.

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155. *Washing Preparation.*—Half a pound of soap; half a pound of soda; quarter of a pound of *quick*-lime. Cut up the soap and dissolve it in half a gallon of boiling water; pour half a gallon of boiling water over the soda; and enough boiling water over the quick-lime to cover it. The lime must be quick and fresh; if quick, it will bubble up when the hot water is poured over it. Prepare each of these in separate vessels. Put the dissolved lime and soda together, and boil them for twenty minutes. Then pour them into a jar to settle.

Another method of making this preparation is—Instead of preparing each of the articles by themselves, dissolve over night half a pound of soda in one gallon of boiling water, pour it on the lime, and let it settle; cut up the soap, and pour the clear water from the lime and soda upon it. In the morning it will be a dissolved mass, fit for use. In this way the twenty minutes' boiling of the lime and soda is dispensed with.

In either of these processes white or common yellow soap may be used. But the lime should be white and quick. If it does not bubble and hiss when the water is poured on it, it is unfit for use.

This preparation contains nothing injurious to the linen. It has been proved by trial that if the directions are rightly followed, it is less destructive than the old method.

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156. *How to proceed after having made the Preparation.*—Set aside the flannels and colored things, as they *must not* be washed

in this way. They may be washed in the usual way while the others are boiling.

The night before, the collars and wristbands of shirts, the feet of stockings, &c., should be rubbed well with soap and set to soak.

In the morning pour ten gallons of water into the copper, and having strained the mixture of lime and soda well, taking great care not to disturb the settlings, put it, together with the soap, into the water, and make the whole boil before putting in the clothes. A plate should be placed at the bottom of the copper to prevent the clothes from burning.

Boil each lot of clothes from half an hour to an hour. Then rinse them well in cold blue water. When dry they will be beautifully white.

The same water will do for *three* lots. Wash the finer things first.

After having been used for the clothes, the mixture may be employed for cleaning silver, brass, or any other kind of metal; which should afterwards be dried and polished with leather. The liquid may also be used for scouring floors, or cleaning paint.

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157. *To make Starch.*—Dissolve as much starch as will be required in a very small quantity of cold water; then pour boiling water on it till it is of the right consistency, and let it boil once or twice.

In *mixing starch*, put a lump of sugar in it to prevent it from sticking to the iron. Stirring the starch for a minute with a sperm candle improves it when it is wanted for shirt bosoms or collars.

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158. *Gum Arabic Starch.*—Get two ounces of fine white gum arabic, and pound it to powder. Next put it into a pitcher, and pour on it a pint or more of boiling water, (according to the degree of strength you desire,) and then having covered it, let it set all night. In the morning, pour it carefully from the dregs into a clean bottle, cork it, and keep it for use. A tablespoonful of gum water stirred into a pint of starch that has been made in the usual manner, will give to lawns (either white or printed) a look of newness to which nothing else can restore them after washing. It is also good (much diluted) for thin white muslin and bobbinet.

159. *To keep Muslins of a good Color.*—Never wash muslins or any kind of white cotton goods, with linen; for the latter deposits or discharges a gum and coloring matter every time it is washed, which discolors and dyes the cotton. *Wash them by themselves.*

160. *To wash Flannels.*—Flannels should be washed in soft water, soap, and much blue. The water should be as hot as the hands will bear; wring them as dry as possible, shake them and hang them out; but do not rinse them after the lather.

161. *To make Flannels not shrink.*—The first time of washing put them into a pail of boiling water, and let them lie till cold.

162. *To scour Flannels.*—Slice half a pound of yellow soap, and dissolve it in boiling water, so as to make it of the thickness of oil; cover the flannels with warm water, add a lump of pearlash, and about one-third of the soap-solution; beat them till no head rises on the water; then pour it off, and proceed as before with hotter water, without pearlash.

163. *To wash Woollens.*—Use soft water; and, in order to make a lather, put half a pound of soap into a gallon of water, (or as much more in proportion as is necessary,) and boil it until the soap is dissolved; wash through two waters, (unless one is found sufficient,) as warm as can be borne, adding, as you go on, what quantity of the soap-water is needed; wring them out each time; then throw them into a rinsing-tub, and fill, to covering, with boiling water. Let them remain until cool enough to admit of handling, then proceed to rinse well, and wring them.

N.B.—Observe, the rinsing-water must be *hard water*—this is the secret. This method will do for any kinds of woollens; but for large and strong, such as blankets, or carpets, &c., perhaps wringing would be better omitted, and in all cases, care should be taken to spread out the articles straight and smooth.

164. *Drying Clothes.*—If the weather be favorable, the drying may be best finished in the open air; but if the weather be damp or doubtful, the article should be, without delay, spread before a fire, or hung in an apartment where there is a strong current of air. A dry cloth should be placed on the line hedge,

or horse, and the woollen article spread upon it. The more quickly the drying can be accomplished the better. For this reason, settled dry weather should be chosen for this kind of work; if windy, all the better.

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165. *Family Washing.* — [The following method, though not generally known, is much practiced in many families.] Melt together half a pound each of washing soda and of soap cuttings, mix well with sixteen gallons of water, pour it lukewarm over the dirty linen, and leave to soak for twenty-four hours. Drain this water from the clothes, and put them into a boiler, with a second supply of the same preparation cold, and let them boil for rather a longer time than if they had been previously washed. They will then require to be washed out in clean, warm water, looking carefully over them that the parts requiring it may be rubbed; afterwards rinse in the usual way. This direction applies to all white and brown-holland articles. Bobbinet, and lace, retain their color best, if only *scalded*, not *boiled*. This mode of washing has been adopted for many years in a family of seven persons; the linen is of an excellent color, with only half the assistance formerly required, and the quantity of soap used is much lessened.

N. B. The refuse water is a good manure for fruit trees.

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166. *Substitutes for Soap.*—Put any quantity of pearl-ash or soda into a large jar, cover it lightly, and in a few days it will become liquid; then mix with it an equal quantity of newly-slaked lime, and double its quantity of soft water: boil it half an hour, add as much more hot water, and pour off the liquor.

Two ounces of pearl-ash, used with a pound and a half of soap, will effect a considerable saving.

For coarse purposes, soft soap is a saving of nearly one-half. The most economical plan of keeping hard soap, is to cut it into pieces of about a pound each, and keep it moderately dry.

A little pipe-clay dissolved in the water, or rubbed with the soap on the clothes, will give the dirtiest linen the appearance of having been bleached; it will also clean them with about half the labor, and a saving of full one-fourth of the soap. Pipe-clay will also render hard water nearly as soft as rain-water.

Carpets, moreen curtains, or other woollen goods, may be cleaned with the coarse pulp of potatoes, used as a kind of soap.

167. *Horse-chestnut Soap.*—It is not generally known that the horse-chestnut contains a soapy juice, not only useful in bleaching, but in washing linens and stuffs. The nuts must be peeled and ground, and the meal of twenty of them will be sufficient to mix with ten quarts of hot water, with which the clothes may be washed without soap; the clothes should then be rinsed in spring-water. The same meal being steeped in hot water, and mixed with an equal quantity of bran, will make a nutritious food for poultry.

168. *To wash a Cotton Counterpane.*—Slice a pound of mottled soap, dissolve it in a pailful of boiling water, and add a small lump of pearl-ash; next, put the counterpane into warm water, with a bowl of the soap-solution, beat it and turn it, wash it in a second liquor, and rinse it in cold water; then put three teaspoonfuls of liquid blue into a thin liquor, stir together, and put in the counterpane; beat it a few minutes, and dry it in the air.

169. *To wash Silk Stockings, White and Black.*—Cut in thin bits some white soap, and boil it in soft water; pour a little of it among cold, soft water, and wash the stockings, first upon the inner side; repeat the washing with fresh suds and water, till they are washed quite clean; turn the outside the last time of washing, and if the feet be very dirty, rub a little of the boiled soap upon them, but not upon the legs. If to be colored, mix the dye with a little clean suds, and dip in the white stockings; draw them out smooth, and lay them upon a sheet on a bed, with the window open, and when almost dry, lay them upon a piece of flannel, and with another bit rolled up, rub them hard and quick one way till they are dry.

170. *To wash Thread Stockings and Gloves.*—Fine thread-stockings and gloves should be well soaped, put into a lather of cold water, and boiled; they should then be put into a fresh, cold lather, and be boiled again; when, on taking them out, they will require little more than rinsing.

171. *To wash Cotton Stockings.*—Lay them in cold water at night; next day boil them in a copper with some soda and soap; stir them well about, and they will become quite clean without any rubbing; rinse them well in cold water, and bleach them;

when nearly dry, draw them smooth, folding them straight over the instep. Place them under a heavy weight, or iron them.

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172. *To wash Cotton Bed-furniture, and printed Calicoes in general.*—1. Get rid of as much dirt as possible, by brushing and shaking.

2. Do not let the dirty things lie about in a damp wash-house, or in any way become damp before they are fairly wetted.

3. On no account use a particle of soda, pearl-ash, or any thing of the kind.

4. Allow plenty of water, and plenty of room in the tub.

5. Use soft water, no hotter than would be pleasant for washing the hands.

6. Rub with soap in the ordinary way. Mottled soap is preferable to yellow. If a general wash is about, the liquor in which flannels have been washed the second time, does very well for the first washing of colored things; or that in which muslins have been washed a second time, provided no soda or anything else of the kind was used.

7. When the first washing is completed, have ready another tub with water of the same degree of warmth, into which put each piece immediately on wringing it out of the first liquor

8. Repeat the process of washing in the second liquor, carefully observing that every part is clean.

9. On wringing out of the second liquor, immediately plunge each piece into cold *spring* water for rinsing.

10. On wringing each piece out of the rinsing water, immediately hang it out, and let it dry as quickly as possible.

11. In hanging up, put any thick double parts next the line, letting the thinner part hang down and blow about. When these are dry, the positions may be changed, and the thick parts hung downwards.

12. If, through unfavorable weather, or any other circumstance, the drying cannot proceed at once, the things had better remain all night in the rinsing water, than be laid about damp. If they are half-dry out-of-doors, when taken in for the night let them be hung or spread in a room, and again hung out early next day. If there is no chance of favorable drying abroad, they should be quickly dried before a fire, or round a stove.

13. If starching is required, a sufficient quantity of made starch may be stirred into the rinsing water.

173. *How to wash Printed Dresses.*—A very cool lather of white soap, of the best quality, should be used, as the inferior soaps contain rosin, and other pernicious ingredients most destructive to colors. Soda, pearl-ash, vinegar, alum, salt, washing-powder, &c., although they may not injure some colors, should never be used; for they will most certainly destroy others. Printed dresses should not be washed with household or body linen, or put into scalding water. It is desirable to wash colors with a light hand, so as not to subject them to hard rubbing, and to rinse with plenty of clean cold water, and to dry in the open air. Claret, chocolate, purple, lilac, red, pink, and black, are the most permanent; the cloth for these colors being prepared in a peculiar manner, and which process has the effect of better fixing them to it. Blue, green, drab, ruby, crimson, buff, dahlia, orange, and cinnamon, as they do not admit of the cloth being so prepared, of course require more careful treatment, or some of the surface color may possibly on the first washing scale off and tinge the white, especially if not well rinsed; but by a little discretion the most delicate colors may be effectually preserved.

174. *To wash Chintz, so as to preserve its Gloss and Beauty.*—Take two pounds of rice and boil it in two gallons of water, till soft; when done, pour the whole into a tub; let it stand till about the warmth you in general use for colored linens; put the chintz in, and use the rice instead of soap; wash it in this, till the dirt appears to be out; then boil the same quantity as above, but strain the rice from the water, and mix it in warm water. Wash it in this till quite clean; afterwards rinse it in the water the rice was boiled in; this will answer the end of starch, and no dew will affect it, as it will be stiff while it is worn. If a gown, it must be taken to pieces, and when dried, hang it as smooth as possible; after dry, rub it with a sleek stone, but use no iron.

175. *To protect Children from Burning.*—Add one ounce of alum to the last water used in rinsing children's dresses, and they will be rendered uninflammable, or so slightly combustible that they would take fire slowly, if at all, and would not flame.

176. *Composition for Washing in Sea-water.*—Mix a strong solution of potash with an equal weight of pipe-clay, and work

them to a paste, one pound of which will soften four gallons of sea-water.

177. *To bleach a Faded Dress.*—Wash the dress in hot suds, boil it and rinse it, then dry it in the sun. Should it not be rendered perfectly white, lay the dress in the sun for several days.

178. *To preserve the Color of a Print Dress.*—Rip the skirt from the body, and wash them in cold rain water in which a handful of common salt has been thrown. Do not expose it to the sun to dry, but roll it tightly in a coarse cloth until dry enough to iron.

179. *To wash White Lace.*—A quarter of a cake of white wax, six lumps of sugar, and a dessert-spoonful of made starch, to be mixed with a quart of soft water. Tack the lace very slightly in a thin cloth dipped in cold water, then let it lie in a strong lather for one day. Change the water, and leave it in a second lather all night. Put the above materials into a sauce-pan, boil the lace in it for ten minutes, then throw it into cold water, and when nearly dry iron it.

180. *Washing Kid Gloves.*—Have ready a little new milk in one saucer, and a piece of brown soap in another, and a clean cloth or towel, folded three or four times. On the cloth, spread out the glove smooth and neat. Take a piece of flannel, dip it in the milk, then rub off a good quantity of soap to the wetted flannel, and commence to rub the glove downwards to wards the fingers, holding it firmly with the left hand. Continue this process until the glove, if white, looks of a dingy yellow, though clean: if colored, till it looks dark and spoiled. Lay it to dry, and the operator will soon be gratified to see that her old gloves look nearly new. They will be soft, glossy, smooth, shapely, and elastic. Dark, and especially black mourning gloves, should be of the very best and high-priced.

181. *To iron Shirt Fronts and Dresses.*—Shirt-fronts are most conveniently ironed upon a deal board about 12 inches long and 8 wide, covered with fine flannel; to be placed between the back and front of the shirt, after the back is ironed. The skirts of dresses also may be ironed in a similar manner, using a

board as long as the skirt, 26 inches wide at one end, and 12 inches at the other. The board should be covered with a blanket, and rest upon a thin block of wood at each end, to keep it from creasing the skirt beneath it.

182. *To clean Hair Brushes and Combs.*—Sub-carbonate of soda or potass, sometimes called salt of tartar or salt of wormwood, is to be dissolved in boiling water—two heaped teaspoonfuls will be sufficient for half a pint; into this mixture dip the hairs of the brush, and draw the comb through many times. The brush and comb, with the help of this solution, will quickly cleanse each other; dry quickly and they will be as white as new. Observe two things: the potass must be kept in a stopper bottle, or it will soon become liquid; when liquid it is not injured for use, but if left in paper would be wasted; also the mahogany or satin-wood back of the brush must be kept out of the solution, as it is apt to discolor wood.

183. *To clean Sponge.*—Put into two pints of hot water about three cents worth of Salts of lemon, and steep the sponge in it. After it is clean, rinse it in clean water.

Or, immerse it in cold buttermilk, and let it soak a few hours. Then rinse it in pure water.

184. *To clean Ermine and Minivar.*—Take a piece of soft flannel, dip it in common flour, and rub the fur with it, being careful to rub it against the grain. Shake it well and rub again with the flannel till all the flour is out of it.

185. *To clean Swansdown.*—White swansdown may be washed in soap and water; after washing, shake it out, and when the down is somewhat raised, shake it before a clear fire to dry.

186. *To clean Leather Cases.*—To clean hat cases, writing-desks, &c., dissolve in warm water a small quantity of oxalic acid, and wash the articles with a sponge wet in the solution. When dry they will look almost equal to new.

187. *To take Stains out of Linen.—Stains caused by Acids* can be removed by wetting the part, and laying on it some salt of wormwood; then rub it without diluting it with more water

Or, let the cloth imbibe a little water without dipping, and hold the part over a lighted match, at a due distance. The spots will be removed by the sulphureous gas.

Or, tie up in the stained part some pearlash; then scrape some soap into cold soft water to make a lather, and boil the linen till the stain disappears.

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188. *Stains of Wine, Fruit, &c., after they have been long in the Linen.*—Rub the part on each side with yellow soap; then lay on a mixture of starch in cold water very thick; rub it well in, and expose the linen to the sun and air till the stain comes out. If not removed in three or four days, rub that off and renew the process. When dry it may be sprinkled with a little water.

Recent Stains of Fruit may be removed by holding the linen tightly stretched over a tub and pouring hot water over the part. This must be done before any soap has been applied to it.

Obs. As soon as a stain is made on table-linen, &c., rub on it common table salt before it has time to dry; the salt will keep it damp till the cloth is washed, when the stain will disappear; or wash the stain lightly when the cloth is removed.

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189. *To restore Scorched Linen.*—Peel and slice two onions, and extract the juice by squeezing or pounding. Cut up half an ounce of white soap and two ounces of fullers' earth; mix with them the onion juice and half a pint of vinegar. Boil this composition well, and spread it, when cool, over the scorched part of the linen, leaving it to dry thereon. Then wash out the linen.

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190. *To restore Linen that has long been Stained.*—Rub the stains on each side with wet brown soap; mix some starch to a thick paste, with cold water, and spread it over the soaped places; then expose the linen to the air. If the stains do not disappear in three or four days, rub off the mixture, and repeat the process with fresh soap and starch. Then dry it, wet it with cold water, and wash it.

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191. *Grease or Wax Spots.*—Grease-spots should be rubbed with strong pearlash and water. Spots of wax or oil paint should be rubbed with turpentine, and washed with soap and

water: or, wax, if moistened repeatedly with spirits of wine, may be brushed off. Or, dissolve six ounces of alum in half a pint of water, warm it, wash the stained part with it, and leave it to dry.

Or, in a quart of warm water, dissolve a little white soap, and one ounce of pearlash; to which add two spoonsful of ox-gall, and a little essence of lavender or bergamot: mix the whole, strain it, and keep it in a bottle. In using it, put a small quantity on the spot, brush, and wash it with warm water, so as entirely to remove the liquor applied, which might injure the cloth if allowed to remain.

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192. *Other Stains.—Many other Stains* may be taken out by dipping the linen in sour buttermilk, and drying it in a hot sun. Then wash it in cold water, and dry it, two or three times a-day.

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193. *Ironmoulds.*—Ironmoulds should be wetted, then laid on a hot water-plate, and a little essential salt of lemons put on the part. If the linen becomes dry, wet it, and renew the process, observing that the plate is kept boiling hot. Much of the powder sold under the name of salt of lemons is a spurious preparation; and therefore it is necessary to dip the linen in a good deal of water, and wash it as soon as the stain is removed, to prevent the part from being worn into holes by the acid. *Ink spots* can be removed in the same way.

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194. *To take Mildew out of Linen.*—Take soap, and rub it well; then scrape some fine chalk, and rub that also in the linen; lay it on the grass; as it dries wet it a little, and it will come out at twice doing.

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195. *Or*, mix soft soap with starch powdered, half as much salt and the juice of a lemon; lay it on the part on both sides with a painter's brush. Let it lie on the grass day and night till the stain comes out.

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196. *To discharge all Stains which are not Metallic.*—Mix two tea-spoonfuls of water with one of spirit of salt; let the stain lie in it for one or two minutes; then rinse the article in cold water. This will be found particularly useful in removing stains from white doilys.

197. *Prepared Ox-gall for taking out Spots.*—Boil together one pint of ox-gall and two ounces of powdered alum; to which add two ounces of common salt; let the liquor settle, add a few drops of essence of lemon, pour it off into a bottle, and cork tightly.

198. *Salt of Lemons.*—Mix one ounce of salt of sorrel in very fine powder, with an equal quantity of cream of tartar; this is the *salt* sold in the shops; but, as it is only recommended for removing ironmoulds or ink spots, it will be better to use only the salt of sorrel.

199. *To bleach Linen.*—Mix common bleaching powder, in the proportion of one pound to a gallon of water; stir it occasionally for three days, let it settle, and pour it off clear. Then make a ley of one pound of soda to a gallon of boiling soft water, in which soak the linen for twelve hours, and boil it half an hour; next, soak it in the bleaching liquor, made as above; and lastly, wash it in the usual manner.

Discolored linen or muslin may be restored, by putting a portion of bleaching liquor into the tub wherein the articles are soaking.

200. *Use of Potatoes in Bleaching.*—This method of bleaching consists in substituting for soap, an equal quantity of potatoes three-parts boiled. The linen is first boiled for nearly an hour; it is next put into a tub of boiling water, from which each piece is taken separately, and rubbed with the potatoes, as with soap. The linen is then boiled with the potatoes for half an hour, next taken out, rubbed, and rinsed two or three times in cold soft water, wrung, and hung up to dry. Kitchen linen, which has mostly the smell of tallow, loses it after having been bleached by this process.

201. *To Remove fresh Ink Stains.*—Let one person hold the part that is spotted between his two hands over a basin and rub it, while another pours water gradually from a decanter upon it, and let a whole pitcher-full be used if necessary; or if the ruffle, apron, &c. be at liberty, let it be dipped into a basin filled with water, and there squeezed and dipped in again, taking care to change the water every two or three squeezes. If the ink be spilled on a green table carpet, it may immediately be taken

out with a tea-spoon so entirely, that scarcely any water at all shall be wanted afterwards, provided it was only that instant spilled, as the down of the cloth prevents the immediate soaking in of the ink, or of any other liquor (except oil); but if it have lain some time, be the time ever so long, provided the place be still wet, by pouring on it fresh clean water, by little and little at a time, and gathering it up again each time with a spoon, pressing hard to squeeze it out of the cloth into the spoon, you will at last bring it to its natural color, as if no such accident had happened.

202. *To take out Spots of Ink.*—As soon as the accident happens, wet the place with juice of sorrel or lemon, or with vinegar, and the best hard white soap.

203. *To remove Ink Stains.*—Get a pint cup, or narrow-topped jug, full of boiling water; place the stained part (of the linen, &c.) on the top of the cup; dip it in, draw it tight over the top of the cup, and, while wet and hot, with your finger rub in a little salt of sorrel. The acid should remain on the linen for half-an-hour before it is washed. As salt of sorrel is a powerful poison, the paper should be marked POISON, and kept carefully locked up, when not in use.

204. *The fumes of brimstone useful in removing Spots or Stains in Linen, &c.*—If a red rose be held in the fumes of a brimstone match, the color will soon begin to change, and, at length, the flower will become white. By the same process, fruit-stains or iron-moulds may be removed from linen or cotton cloths, if the spots be previously moistened with water. With iron-moulds, weak muriatic acid is preferable, assisted by heat; as by laying the cloth on a tea-pot or kettle, filled with boiling water.

205. *To remove Stains from Black Bombazine, Crape or Cloth.*—Boil a large handful of fig-leaves in two quarts of water until reduced to a pint; squeeze the leaves quite dry, and put the liquor into a bottle for use. The article should be rubbed with a sponge dipped in the liquor. The word POISON should be written on the bottle, to prevent any accident.

206. *To clean Black Satin.*—Boil three pounds of potatoes to a pulp in a quart of water; strain through a sieve, and brush

the satin with it on a board or table. The satin must not be wrung, but folded down in cloths for three hours, and then ironed on the wrong side.

207. *To restore Color taken out by Acids.*—Sal-volatile or hartshorn will suffice for this purpose. It may be dropped on silk without doing any injury.

208. *To take out Spots on Silk.*—Rub the spots with spirit of turpentine; this spirit exhaling, carries off with it the oil that causes the spot.

209. *To extract Grease from Silks.*—Scrape French chalk, put it on a grease-spot, and hold it near the fire, or over a warm iron, or water-plate filled with boiling water. The grease will melt, and the French chalk absorb it. Brush or rub it off; repeat if necessary.

210. *Another way.*—To remove a grease spot from silk, scrape some French chalk on the wrong side; let it remain some time, and then brush off. Magnesia is also a good remedy.

211. *To extract Grease from Silks or Stuffs* (*another way*).—Take a lump of magnesia, and rub it wet over the spot; let it dry; then brush the powder off, and the spot will disappear.

Or, take a visiting or other card; separate it, and rub the spot with the soft internal part, and it will disappear without taking the gloss off the silk.

212. *To take Spots out of Cloths, Stuffs, Silk, Cotton, and Linen.*—Take two quarts of spring water, put in it a little fine white potash, about the quantity of a walnut, and a lemon cut in slices; mix these well together, and let it stand for twenty-four hours in the sun; then strain it off, and put the clear liquid up for use. This water takes out all spots, whether pitch, grease, or oil, as well in hats, as cloths and stuffs, silk or cotton, and linen. As soon as the spot is taken out, wash the place with fair water; for cloths of a deep color, add to a spoonful of the mixture as much fair water as to weaken it.

Grease spots in cloth may be removed by using soap and water with a tooth or nail brush, and afterwards wiping off the

lather with the wet corner of a towel. Essence of lemon, or pure spirit of turpentine, will remove pitch from cloth, &c.

In woollen cloth, an easier method is to scrape off the hard tallow with the edge of a tea-spoon, then rub the part briskly with a clean woollen rag, shifting the rag as the part becomes dirty; or, place some blotting paper on the spot, and press it with a hot iron, occasionally moving the paper.

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213. *To clean Silks or Merinoes, &c.*—Grate two or three large potatoes, add to them a pint of cold water, let them stand a short time, and pour off the liquid clear, or strain it through a sieve, when it will be fit for use. Lay the silk on a flat surface, and apply the liquid with a clean sponge, till the dirt is well separated, dip each piece in a pail of clean water, and hang up to dry without wringing. Iron whilst damp on the wrong side. Should the silk be of more than one color, it is desirable to wet a small piece first, lest the dress should be spoiled, by moisture causing the colors to run; but for self-colored silks, the direction is an excellent one; and satinettes, even of light colors, if not greased or stained, make up again nearly equal to new.

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214. *To clean Silks.*—If of any other color than black, wash them in a hot lather of soft soap and water, and rinse them in plain warm water, to which a small quantity of dye may be added, according to the color: a few drops of vitriol added to the water will freshen crimson, scarlet, maroon, or bright yellow; lemon-juice for pink, rose, or carnation; pearlash for blue and purple; and for olive-green, a pinch of verdigris; but acid must not be used for fawn, brown, or orange. Then squeeze the liquid from the silk, roll it in a coarse sheet, and wring it: spread it out, and rub it on the wrong side with gum-water, with a little pearlash in it; dry it in a warm room, and finish with calendering or mangling it.

Black silk should be sponged with hot ox-gall on both sides, then rinsed, and dried smooth on a board. Or, spread black plain silks upon a board, soap the dirty place, and brush the silk on both sides with a fine soap lather; put it into hot water, rinse it through cold water, and, having squeezed and dried it, smooth it on the right side with an iron, moderately heated.

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215. *To make Old Silk look as well as New.*—Unpick the dress, put it into a tub and cover it with cold water; let it re-

main an hour; dip it up and down, but do not wring it; hang it up to drain. Iron it very damp, and it will look well.

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216. *To clean Silks.*—A quarter-pound of soft soap, a teaspoonful of brandy, a pint of gin. Mix all well together. With a sponge or flannel spread the mixture on each side of the silk without creasing it. Wash it in two or three pails of cold water, and iron on the wrong side when rather wet.

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217. *To remove Stains from Silks.*—Stains produced by vinegar, lemon-juice, oil of vitriol, or other sharp corrosives, may often be removed from silks by mixing a little pearlash with soap-lather and passing the silk through them. Spirits of hartshorn will also often restore the color.

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218. *To dip Rusty Black Silk.*—Boil logwood and water half an hour, in which simmer the silk for the same time; then take it out, and put into the dye a little blue vitriol, or green copperas; cool it, and simmer the silk in it for half an hour. Or, boil a handful of fig-leaves in two quarts of water until it be reduced to one pint; squeeze the leaves, and bottle the liquor for use. When wanted, sponge the silk with it.

The word *Poison* should be written on the bottle.

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219. *Black Reviver.*—Upon two ounces of powdered logwood, and half an ounce of green copperas, pour three pints of boiling water: let it stand till cold, when strain for use, by sponging the faded stuff with it.

To revive black cloth, boil it with logwood in water for half an hour, the cloth having been previously cleaned, dipped in warm water, and squeezed dry; next, take out the cloth, add a small piece of green copperas, and boil it another half hour; then hang it in the air an hour or two, rinse it twice or thrice in cold water, dry it, and finish it with a soft brush, over which two or three drops of olive oil have been rubbed.

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220. *White Satin.*—Stone blue and flannel will make white satin look nearly new, especially if rubbed afterwards with crumbs of bread.

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221. *Blond Lace.*—When blond lace gets tumbled, breathing upon it, and afterwards shaking it, will be found to answer the

purpose of an iron, without chance of making the lace look yellow, as it probably would be by the use of an iron. There is no necessity for unpicking the lace.

222. *To raise the Surface or Pile of Velvet when pressed down.*—Warm a smoothing-iron moderately, and cover it with a wet cloth, and hold it under the velvet; the vapor arising from the heated cloth will raise the pile of the velvet, with the assistance of a rush whisk.

223. *To remove Grease or Oil Paint from Cloth.*—Moisten them with a few drops of concentrated solution of subcarbonate of potash; rub the spot between the fingers, and then wash the spot with a little warm water.

224. *Another way.*—To remove oil paint, rub the part with a bit of flannel dipped in spirits of wine or turpentine.

225.—*Spots from Woollen Cloths.*—Fullers' earth, or tobacco pipe-clay, being put wet on an oil spot, absorbs the oil as the water evaporates, and leaves the vegetable or animal fibres of cloth clean, on being beaten or brushed out. When the spot is occasioned by tallow or wax, it is necessary to heat the part cautiously by an iron or the fire, while the cloth is drying. In some kinds of goods, blotting paper, bran, or raw starch, may be used with advantage.

226. *To clean a White or Drab Coat.*—If the coat be much soiled, brush well into the cloth, the way of the nap some of the following: mix pounded pipe-clay and whiting, some fullers' earth, and a little stone blue dissolved in vinegar enough to form the whole into a paste. When the coat is quite dry, rub it well, beat it to get out the dust, and brush it well.

227. *To clean Cashmere Stuff.*—If common soap be employed, these valuable fabrics will be injured, and rendered less pliant and velvety than before. The proper method is to use a soapy root common in Russia and the East, in the Greek islands, and in Italy. Its original name is *ishkar*, and it affords an ash-colored powder, which, mixed with water into a paste, will free the stuff frrom any greasy stains, and leave them the yellow tint so much prized.

228. *To make Portable Balls for removing Spots from Clothes in general.*—Take fullers'-earth perfectly dried, so that it crumbles into powder, moisten it with the clear juice of lemons, and add a small quantity of pure pearl-ashes; then work and knead the whole carefully together, till it acquires the consistence of a thick elastic paste; form it into convenient small balls, and expose them to the heat of the sun, in which they ought to be completely dried. In this state they are fit for use in the manner following:—First, moisten the spot on your clothes with water, then rub it with the ball just described, and suffer it again to dry in the sun: after having washed the spot with pure water, it will entirely disappear.

229. *To make Breeches Balls.*—Mix half a pound of Bath brick in fine powder, one pound of pipe-clay, two ounces of pumice-stone in fine powder, and three ounces of ox-gall; color the mixture with yellow ochre, umber, or Irish slate, to the desired shade, and shape into balls.

230. *Scouring Drops.*—Mix with one ounce of pyroligneous ether, three drachms of essence of lemon. These will remove oil or grease from woollen cloth, silk, &c., by rubbing the spot with a piece of the same article, moistened with the drops.

231. *To take out Wax or Spermaceti from Cloth.*—Hold a red-hot iron steadily within about an inch of the cloth, and in a few minutes the wax will evaporate; then rub the cloth with whitish paper, to remove any mark that may remain.

232. *To take Wax out of Velvet of all Colors except Crimson.*—Take a crummy wheaten loaf, cut it in two, toast it before the fire, and, while very hot, apply it to the part spotted with wax. Then apply another piece of toasted bread hot as before, and continue the application till the wax is entirely taken out.

233. *For taking Grease out of the Leaves of Books.*—Fold up, in two small bags made of fine open muslin, some ashes of burnt bones, finely powdered, or of calcined hartshorn, which is always ready prepared at the shops of the druggists. Lay the bags of muslin containing the powder, one on each side of the greasy leaf; and, having heated a pair of fire-tongs, or hair-dresser's pinching-tongs, of a moderate warmth, press with

them the two bags against the greasy spot, and hold them some time in that situation. Repeat the process, if necessary.

When the irons cannot be conveniently used, the powder may be heated over the fire, in a clean earthen vessel; and, whilst hot, applied, without any muslins, on each side of the grease spot, and a weight laid on it to assist its effect.

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234. *To remove Spots of Grease from Paper.*—Take an equal quantity of roach alum, burnt, and flour of brimstone, finely powdered together; wet the paper a little, and put a small quantity of the powder on the place, rubbing it gently with your finger, and the spot will disappear

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235. *To discharge Grease from Leather.*—Apply the white of an egg to the spot, and dry it in the sun; or, mix two table-spoonfuls of spirit of turpentine, half an ounce of mealy potatoes, and some of the best Durham mustard. Apply this mixture to the spot, and rub it off when dry. A little vinegar added, renders it more efficacious.

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236. *For cleaning light Kid Gloves.*—If the gloves are not so much soiled as to require wetting, they may be cleaned thus:—Scrape fine as much as a tea-spoonful of French chalk. Put on the gloves as for wear, taking care that the hands be not only clean, but cool and dry. Put some of the powdered chalk into the palm of one glove, and rub the hands and fingers together, just as if the chalk were soap employed in washing the hands. In this way rub in all the chalk. Then take off the gloves, without shaking them, and lay them aside for an hour or two, or a night, if it suit. Again put them on, and clap the hands together till all the chalk is shaken out. Fullers' earth, powdered and sifted, may be used in the same manner as French chalk, and will answer nearly as well. Or, gloves slightly soiled, may be cleaned by rubbing with a very clean and dry bit of India-rubber. White kid gloves, or very light stone-color, or lilac, (not darker than what is called a French white,) may be stained of a bright and delicate yellow, just the color of cowslips, by rubbing them with the petals of the common white rose. The roses must be fresh gathered for this purpose; and the best method of applying the leaves, is by putting the glove on its proper hand, and then rubbing it not convenient to do the whole at one time, the effect is no

injured by laying them aside, and taking up again. When done, they look quite equal to new, and keep clean longer than gloves of the same color stained in the ordinary way.

237. *Another way to clean Kid Gloves.*—First see that your hands are clean; then put on the gloves and wash them, as though you were washing your hands, in a basin of turpentine. Burning fluid will do equally well. Then hang them up in a warm place, or where there is a good current of air, which will carry off all smell of turpentine. This method was brought from Paris, and thousands of dollars have been made by it. The spirits of hartshorn may be substituted for the turpentine.

238. *Washing Gloves.*—If the gloves are so much soiled as to require washing, the best application is a strong lather made of curd soap with new milk; or water will do. A very small quantity of liquid will suffice. Before wetting the glove, run a strong thread through the opposite sides, close to the wrist binding. Leave it about a quarter of a yard long, and make a large knot at each end. This is to form a loop or handle by which to hang up the glove to dry, and hold it open. Having prepared the lather, put one glove on the hand, and apply the lather by means of a shaving brush or a piece of fine flannel, carrying the strokes downwards—that is, from the wrist or arm to the tips of the fingers. Continue this process till the dirt disappears, though the glove appears of a dingy, ill-looking color. Then take a clean soft towel, and dab it till the soap is removed. Take off the glove, blow into it to open all the fingers, and, by means of the aforesaid loop, hang it to dry in a shady but airy place. The loop should be fixed to two pegs, or by two pegs or strings, fastened to a line in such a manner as to keep the sides of the glove apart while drying. When dry, they will have regained their original color, and be smooth, glossy, soft, and shapable. Or, the gloves when cleaned as above, may be laid to dry on several folds of clean linen above and below. Limerick gloves should be washed clean with a strong lather of soap and water, applied with a brush as above. The lather must not be warmer than new milk. When dry from the lather, apply a solution of saffron, stronger or weaker, according to the color desired. A very small quantity of saffron will suffice. Pour boiling water to it, and let it steep at least twelve hours before using. Those who

are frequently cleaning this kind of gloves, may steep a drachm of saffron in half-a-pint of boiling water, and when cold, put the whole into a bottle, without straining. Cork it close, and it will keep a long time for use as required.

239. *To clean Straw Bonnets.*—Put a chafing-dish, with some lighted charcoal, into a close room or large box; then strew on the coals an ounce or two of powdered brimstone, and let the bonnets hang in the room or box for some hours, when they remain to be blocked.

240. *To bleach Straw Hats, &c.*—Straw hats and bonnets are bleached by putting them, previously washed in pure water, into a box with burning sulphur; the fumes which arise, unite with the water on the bonnets, and the sulphurous acid thus formed, bleaches them.

241. *Method of Bleaching Straw.*—Dip the straw in a solution of oxygenated muriatic acid, saturated with potash. (Oxygenated muriate of lime is much cheaper.) The straw is thus rendered very white, and its flexibility is increased.

242. *Varnish for Straw or Chip Hats.*—Powder half-an-ounce of black sealing-wax, put it into a bottle with two ounces of spirits of wine, and set it in a warm place. Lay it on warm with a soft hair-brush, before the fire or sun.

243. *Straw Bonnets.*—If a straw bonnet is not worth the expense of properly cleaning, it may be greatly improved both in comfort and appearance, by washing it with soap and water, applied by means of a bit of flannel or sponge. Afterwards rinse with clean water, and dry quickly in the air. When dry, wash over with the white of an egg, finely beaten. The wire had better be removed before washing, and put on afresh. There is no great art in reducing a straw bonnet for a child. Take off all the ribs of straw that form a sort of border by going round the edge; as many also of the straight ribs as will leave the front nearly of the depth required. From the remaining front ribs cut off a little at each end; fasten the ends securely, and again set on the border ribs. Unpick the sewing of the head-piece, till two, three, or more of the top rounds are taken off, so as to bring it to the size required. Then sew again as

many as will bring it to a proper depth. It is not intended to say, that a person who never learned the art of straw bonnet-making, and has not the proper blocks, &c., will do it as well as one who has; but any notionable needle-woman may do it, so as to look much better than a large bonnet on the small head of a child. A bonnet-shape of pasteboard or buckram may be renewed by laying it between two sheets of damp paper, and ironing with a hot iron. The wire must be previously removed and afterwards put on afresh. To clean silk and ribbons, wash in cold rain water with a very little soap. Avoid squeezing and wringing. If very dirty, two waters may be requisite; the second may be slightly blued, unless the color of the silk forbids it (as yellow or red). Spread on a clean towel, and while damp, iron with a piece of clean paper placed between the silk or ribbon and the iron.

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244. *Paste.*—Take two table-spoonfuls of flour and stir it into a half pint of cold water until the lumps are all broken, then pour this into a pint of boiling water, stirring while doing so; afterwards let it boil up once or twice, and take off.

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245. *Superior Paste*—Mix flour and water, with a little brown sugar, and a very small quantity of corrosive sublimate in powder, and boil it until sufficiently thick and smooth. The sugar will keep the paste flexible, and prevent it scaling off from smooth surfaces, and the corrosive sublimate will check its fermentation: a drop or two of oil of anise-seed, lavender, or bergamot will prevent the paste turning mouldy.

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246. *Bookbinders' Paste.*—Mix wheaten flour first in cold water, then boil it till it be of a glutinous consistence; this method makes common paste. Mix a *fourth*, *fifth*, or *sixth* of the weight of the flour of powdered alum, and if required stronger, add a little powdered resin.

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247. *Rice Glue.*—Mix rice flour smoothly with cold water, and simmer it over a slow fire, when it will form a delicate and durable cement, not only answering all the purposes of common paste, but well adapted for joining paper and card-board ornamental work.

248. *A most excellent Glue.*—Beat an ounce of isinglass to shreds: dissolve it gradually in a pint of brandy, by means of gentle heat, and then strain the solution through a piece of fine muslin. The glue thus obtained should be kept in glass closely stopped. When required for use, it should be dissolved with moderate heat, when it will appear thin, transparent, and almost limpid. When applied in the manner of common glue, its effect is so powerful as to join together the parts of wood stronger than the wood itself is united. This glue dries into a very strong, tough, and transparent substance, not easily damaged by anything but aqueous moisture, which renders it unfit for any use where it would be much exposed to wet or damp air.

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249. *Parchment Glue.*—Take one pound of parchment, and boil it in six quarts of water till the quantity be reduced to one, then strain off the dregs, and boil it again till it be of the consistence of glue.

The same may be done with glovers' cuttings of leather, which make a colorless glue, if not burnt in the evaporation of the water.

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250. *To make Lip Glue, for joining Paper, Silk, or thin Leather, &c.*—Take of isinglass and parchment glues, of each one ounce; sugar-candy and gum-tragacanth, each two drachms; add to them an ounce of water, and boil the whole together till the mixture, when cold, is of the consistence of glue; then form the same into small rolls, or any other figure that may be most convenient, and it will be fit for use.

This glue may be wet with the tongue, and rubbed on the edges of the paper, silk, or leather, that are to be joined; and on being laid together, and suffered to dry, they will be united as firmly as any other part of the substance.

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251. *Liquid Glue.*—Pour naphtha upon shellac until of a creamy consistence, and keep it closely corked. This glue will unite iron, wood, glass, &c. It is water-proof, and dries quickly.

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252. *Glue to hold against Fire or Water.*—Mix a handful of quick-lime in four ounces of linseed-oil, boil them to a good

thickness, then spread it on tin plates in the shade, and it will become exceedingly hard; but may be easily dissolved over the fire, as glue.

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253. *To mend China.*—Mix together equal parts of fine glue, white of eggs, and white of lead, and with it anoint the edges of the article to be mended; press them together, and when hard and dry scrape off as much of the cement as sticks about the joint. The juice of garlic is another good cement, and leaves no mark where it has been used.

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254. *Cement and Ground Glass Imitation.*—In half-a-pint spirits of wine steep one ounce of isinglass twenty-four hours, then dissolve it over a slow fire, keeping the vessel covered that the spirit may not evaporate (for this purpose a double saucepan should be used, the outer one containing water, after the manner of a glue-pot; or the solution may be made in a jar with a lid, tied over also with bladder, and placed in a saucepan of water—the water should surround the jar to the height of two inches or more, but not so high as to float it). When the isinglass is completely dissolved, add the juice of garlic, obtained by pounding in a mortar six cloves of the root, and straining through linen. Mix well, and cork close for a short time. The mixture will then cement either glass or crystal.

Cement to resist Fire and Water.—Half-a-pint each of vinegar and milk, simmer them together till the curd separates. Strain, and with the whey mix the whites of five eggs well beaten up. The mixture of these two substances being complete, add sifted quick-lime, and make the whole into the consistence of putty. Let it be carefully applied—that is, to lay it on every part of the broken edges, and to make the edges fit exactly; as soon as it is perfectly dry, it will be found to resist both heat and moisture. Whatever the article was originally calculated to bear, it is again fitted to bear as much as if it had never been broken.

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255. *To imitate Ground Glass.*—Rub the glass over with a lump of glaziers' putty, carefully and uniformly until the surface is equally covered. This is an excellent imitation of ground glass, and is not injured by rain or damp. It is useful for kitchen windows, &c.

256. *To cement Broken China.*—Mix some oyster-shell powder with the white of a fresh egg, to the thickness of white paint, lay it on thick at the two edges and join them as exact and quick as possible, then put it before the fire till the china is quite hot, and it will cement in about two minutes. Pour boiling water into it directly, wipe it dry, scrape it clean on both sides with a penknife, and it will appear only as a crack. Mix no more than you can use for one or two things at a time; for if the cement grows hard, it will be spoiled. The powder may be bought at the apothecaries'; but it is best prepared at home, which is done as follows:— Choose a large, deep oyster-shell; put it in the middle of a clear fire till red-hot, then take it out and scrape away the black parts; pound the rest in a mortar as fine as possible; sift and beat it a second time, till quite smooth and fine.

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257. *Obs.*—In cementing china and glass, first heat the portions, and when the cement is applied, press them closely together, as the thinner the cement is, the more firmly it holds.

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258. *To cement Broken China or Glass.*—Beat lime to the finest powder, and sift it through fine muslin; then tie some into a thin muslin; put on the edges of the broken china some white of egg; dust some lime quickly on the same, and unite them exactly.

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259. *Chinese method of mending China.*—Take a piece of flint-glass, beat it to a fine powder, and grind it well with the white of an egg, and it joins china without riveting, so that no art can break it in the same place. You are to observe, that the composition is to be ground extremely fine.

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260. *Improved Corks for preserving Wine or Chemical Liquors.*—Melt together two parts of white wax and one part of beef suet; dip your corks in this mixture, and immediately dry them in a stove upon an iron plate; repeat this operation twice, and the corks thus prepared will preserve any liquor well without imparting any ill-flavor thereto.

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261. *Bottle Cement.*—Common red and black sealing-wax, of each half-a-pound; bees'-wax, quarter of an ounce. Melt them in an earthen pipkin or brass kettle. The former is preferable,

because the cement may be kept in it, and again melted whenever it is wanted for use. When the mixture begins to froth, and seems likely to boil over, stir with a tallow candle, which will settle the froth. As soon as the whole is melted, it is ready for use.

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262. *Bottle Cement.*—Melt in an iron ladle some rosin, and a quarter as much bees'-wax; add a little Venetian red, stir with a piece of candle, and, when smoothly melted, dip in the top of the bottles, so as completely to cover them. In making this cement, be careful not to leave it a moment while it is on the fire.

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263. *Blood Cement.*—Blood Cement, for repairing copper boilers, &c., is made by pounded quick-lime and ox-blood mixed together: it must be applied fresh made, as it soon becomes so hard as to be unfit for use.

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264. *Diamond Cement.*—Diamond Cement, for glass or china, is made by dissolving a quarter of an ounce of isinglass in water, by boiling it to the consistence of cream. Add a table-spoonful of spirits of wine. Use warm.

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265. *Cement for attaching Metal to Glass or Porcelain.*—Take two ounces of a thick solution of glue, and mix with one ounce of linseed oil varnish, or three-quarters of an ounce of Venice turpentine. Boil together, agitating them until thoroughly mixed. The pieces to be cemented should be left untouched, after having been united, for forty-eight or sixty hours.

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266. *To mend Tortoise-Shell.*—To mend tortoise-shell, bring the edges of the pieces to fit each other, observing to give the same inclination of grain to each; then secure them in a piece of paper, and place them between hot irons or pincers; apply pressure, and let them cool. Take care that the heat is not too great, or it will burn the shell.

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267. *To clean Gold Chains, &c.*—Make a lather of soap and water; boil the chain in it for a few minutes, and immediately on taking it out, lay it in magnesia powder which has been heated by the fire; when dry, rub it with flannel; if embossed, use a brush.

Or:—Wash it well in soap and water, and put it while wet into a bag with some fresh, clean bran; shake it well, and in a few minutes it will be found perfectly clean.

268. *To restore Pearls.*—Soak them in hot water in which bran has been boiled, with a little salt of tartar and alum, and rub them gently between the hands; rinse them in lukewarm water, and lay them out to dry.

To preserve the color of pearls, keep them in dry common magnesia, instead of the cotton-wool used in jewel-cases, and they will never lose their brilliance.

269. *To clean Gold or Silver Lace.*—Rub it gently with cotton wool, or a soft brush dipped in spirits of wine, taking care not to injure the silk beneath.

270. *To clean Gold and Silver Lace.*—Sew the lace in linen cloth, and boil it in a pint of water, and two ounces of soap; and then wash the lace in water.

271. *To improve Gilding.*—Mix one gill of water, two ounces of purified nitre, one ounce of alum and one ounce of common salt. Lay this over gilt articles with a brush, and their color will be much improved.

272. *Incombustible Varnish for Wood.*—Equal parts of alum and isinglass, dissolved and mixed, applied to wood, prevents it from burning. Liquids can be boiled in a wooden vessel on a common fire, if this varnish be applied to it. The wood chars sometimes, but does not flame.

273. *Cement for Iron Flues.*—Common salt and sifted wood-ashes in equal parts, made into a paste with water, is a very good cement for iron flues, and may be applied when the flue is hot or cold. Iron filings and vinegar will do almost as well, or rather iron filings moistened with diluted muriatic acid. These are generally used for filling up the space between cylinders.

274. *Preparation of common Cement for joining Alabaster, Marble, Porphyry, or other Stones.*—Take of bees'-wax two pounds, and of rosin one pound; melt them, and add one pound

and a half of the same kind of matter, (powdered,) as the body to be cemented is composed of, strewing it into the melted mixture, and stirring them well together, and afterwards kneading the mass in water, that the powder may be thoroughly incorporated with wax and rosin. The proportion of the powdered matter may be varied, where required, in order to bring the cement nearer to the color of the body on which it is employed.

This cement must be heated when applied; as must also the parts of the subject to be cemented together; and care must be taken likewise, that they be thoroughly dry.

When this composition is properly managed, it forms an extremely strong cement, which will even suspend a projecting body of considerable weight, after it is thoroughly dry and set, and is therefore of great use to all carvers in stone, or others who may have occasion to join together the parts of bodies of this nature.

Melted sulphur, applied to fragments of stones previously heated (by placing them before a fire) to at least the melting point of sulphur, and then joined with the sulphur between, makes a pretty firm and durable joining.

Chips out of corners, and similar little deficiencies in the stone, may also be filled up with melted sulphur, in which some of the powder of the stone has been mixed: but the stone should be previously heated.

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275. *Strong Cement.*—To prevent the escape of the vapors of water, spirit, and liquors not corrosive, the simple application of slips of moistened bladder will answer very well for glass, and paper with good paste for metal. Bladder, to be very adhesive, should be soaked some time in water moderately warm, till it feels clammy, it then sticks very well; if smeared with white of eggs instead of water, it adheres still closer.

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276. *To scour a Hat.*—Rub yellow soap on a hard brush, dip it into boiling water, and brush the hat round with the nap; if the nap be clotted, continue to brush it till it is smooth, and free from soap; then, if requisite, scrape out the dirt, by passing round the hat an edged piece of wood, or the back of a knife; next, beat the nap with a cane, hang the hat to dry, and pass a heated flat iron two or three times gently over it; brush it afterwards.

277. *Management of Razor Strops.*—Most razor strops are spoiled by being left too dry; a drop or two of sweet oil, frequently added to the strop, would remedy this; and, after using the strop, passing the razor on the inside of a warm hand, gives the smoothest and finest edge; putting the razor in warm water makes it cut very keen, and perhaps nothing makes a better razor strop than crocus martis, with a little sweet oil, rubbed well on leather with a glass bottle.

278. *To prevent Gentlemen's Hats from being injured by Rain.*—Shake off the water as much as possible; then with a clean linen cloth or silk handkerchief wipe the hat carefully, keeping the beaver flat and smooth, in the same direction as it was first placed; then with hands fix it in the original shape, and hang it at a distance from the fire to dry. A few hours after, or the next morning, lay the hat on the table, and brush it round and round several times with a soft brush in the proper direction, and you will find your hat not in the least injured by the rain.

If the gloss is not quite so high as you wish, take a flat iron, moderately heated, and pass the same two or three times gently over the hat; brush it afterwards; and it will be nearly as handsome as when first sent home from the shop.

279. *Dyeing.*—Occasionally, when colored articles of silk, wool, or cotton have been cleaned, their color requires to be made deeper; at other times, it may be desirable to change the color altogether, when that already in the stuff must be discharged, and the article dyed anew.

Articles of any color may be dyed black, and black may easily be re-dyed. Blues can be made green or black; green may be made brown, and brown, green; and any color on re-dyeing, will take a darker tint than at first. A black may be dyed maroon, claret, or dark-brown; but green is the best color into which black can be changed.

Most colors can be discharged by boiling the articles in water, with a small quantity of spirits of salts in it. Yellows, browns, and blues, are not easily discharged; maroons, reds of some kinds, and olives, may be easily discharged, by boiling them in water, with a small quantity of the following articles: roche-alum, for maroons; oil of vitriol—a very small quantity—for olives and grays; alum, pearlash, or soap, will discharge green to a yellow, which may be boiled off with soap.

280. *To Alum Silks.*—Silk should be alumed cold, for when it is alumed hot, it is deprived of a great part of its lustre. The alum liquor should always be strong for silks, as they take the dye more readily afterwards.

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281. *Various Dyes.*—The following are the articles employed for the colors most in use, the proportions depending upon the depth or the shade required.

Lilac and Purple.—Boil archil in water; or, boil logwood in water; and, when cold, dip the article to be dyed into it, having previously passed it through a weak solution of alum in water. From logwood also may be obtained different shades of *Violet.*

Effective *Lilac* dyes may be produced from the berries of the Portugal laurel; and from the black currant, after the juice has been expressed.

Red is obtained from madder, and Brazil wood; the article being first dipped in weak alum and water, then in the dye, and lastly in a decoction of archil and water, to give it a bloom.

Rose, Flesh-color, Poppy, and *Cherrry-red,* are obtained from a decoction of carthamus in water, with a little soda and lemon juice. For a poppy-color, the article should first be dipped in a weak solution of arnatto in water; and for a pale carnation, a little soap should be added to the carthamus.

Pink Bloom.—Archil is employed to give a bloom to pinks, whites, &c., as for silk stockings; for which purpose, also, pink saucers are used.

Scarlet is obtained from cochineal; but, for cotton and wool, the color derived from it is little superior to that given by madder.

Nankeen is obtained from Spanish arnatto dissolved in hot water, with a small portion of pearlash in it.

Blue is prepared from indigo; but, as this dye is not easily made, it will be better to purchase a bottle of "Blue Dye."

Yellow may be obtained from the juice of the tops of potato-flowers, fustic chips, weld or dyers' weed, turmeric, and Dutch pink.

Green consists of blue and yellow dyes, mixed.

Orange is extracted from carthamus. *Cinnamon* from logwood, Brazil wood, and fustic, mixed; or from a strong decoction made from the green tops and flowers of the common heath.

Black is formed by logwood and green copperas boiled in

water; the color being improved by first boiling the article with galls, or alder-bark, in water; or by first dyeing it with walnut-peels.

Gray is produced by diluting black dye.

Brown is obtained from walnut-peels, or the bark of birch

Olives are made from blue, red, and brown.

The pericarp of the Scotch rose contains a fine purple juice which, diluted with water, dyes silk and muslin *Peach-color*; the addition of alum will make it a deep *Violet* dye.

In all cases, except otherwise specified, the article to be dyed should be first steeped in a weak solution of alum in water.

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282. *To dye the Linings of Curtains, Furniture Covers, &c.*—Wash the articles clean, and, having prepared the dye according to either of the previous recipes, dip them, rinse them in pump water, then in water-starch; dry them quickly, and mangle or calender them.

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283. *To dye Silk Stockings.*—Wash and *boil* the stockings, if requisite, in soap and water, and rinse them in clear hot water. Put three table-spoonfuls of archil into a wash-hand basin of hot water, in which soak the stockings until they become of a lilac shade, when rinse them lightly in cold water. Dry them in fumes of brimstone, and when they are bleached to the required flesh-color, rub the right side with clean flannel or glass, and iron them. If the pink saucer-color be used instead of archil, the stockings will not require bleaching with brimstone.

For Black Stockings.—Having dyed them, finish them on wooden legs, by rubbing them with flannel moistened with olive oil. Rub each pair half an hour.

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284. *To dye Gloves to look like York Tan.*—Put some saffron into one pint of soft water boiling hot, and let it infuse all night; next morning wet the leather with a brush. The tops should be sewn close to prevent the color from getting in.

To dye White Gloves a beautiful Purple.—Boil 4 ozs. of logwood and 2 ozs. of roche-alum in 3 pints of soft water till half-wasted. Let it stand to be cold after straining. Let the gloves be nicely mended; then do them over with a brush, and when dry repeat it. Twice is sufficient, unless the color is to be very dark. When dry, rub off the loose dye with a coarse

cloth. Beat up the white of an egg, and with a sponge rub it over the leather. The dye will stain the hands, but wetting them with vinegar before they are washed will take it off.

285. *To dye Straw and Chip Bonnets Black.*—Boil them in strong logwood liquor three or four hours, occasionally adding green copperas, and taking the bonnets out to cool in the air, and this must be continued for some hours. Let the bonnets remain in the liquor all night, and the next morning take them out, dry them in the air, and brush them with a soft brush. Lastly, rub them inside and out with a sponge moistened with oil, and then send them to be blocked.

286. *To make Nankeen Dye.*—Boil equal parts of arnatto and common potash in water, till the whole are dissolved. This will produce the *pale reddish buff* so much in use, and sold under the name of *Nankeen Dye.*

287. *To dye Cotton a fine Buff Color.*—Let the twist or yarn be boiled in pure water, to cleanse it; then wring it, run it through a dilute solution of iron in the vegetable acid, which printers call *iron liquor;* wring, and run it through lime-water, to raise it; wring it again, and run it through a solution of starch and water; then wring it once more, and dry, wind, warp, and weave it for use.

288. *To dye Worsted or Woollen Black.*—Put in half a gallon of water a piece of bi-chromate of potash, the size of a horse-bean. Boil the articles in this seven or eight minutes. Take them out and wash them. Then in another half-gallon of water put in one table-spoonful and a half of ground logwood; boil the articles in this the same length of time as before. Then wash them in cold water.

289. *To dye Hair and Feathers Green.*—Take of verdigris or verditer 1 oz., gum water, 1 pint; mix them well, and dip the hair or feathers into the mixture, shaking them well about.

290. *Waterproof Clothing.*—First make the cloak, coat, or trowsers of *linen;* then soak them well for a day or two in *boiled* oil; then hang them up in a dry place till perfectly dry, without wringing the oil out; then paint them, without turpen

tine or dryers being in the paint, black, or any other color you like, and lay the paint on thinly, and let it dry. (This is the method practised by seamen.)

Waterproof Clothing.—Make the garment of strong unbleached calico; hang it up in a dry place, and, with a brush, give it two coats of boiled linseed oil. Buy the oil ready-boiled; a pint will be sufficient for a cape or pair of overalls. Canvas may be prepared in the same way for rick-cloths, or other roofing purposes.

Another way.—Get some weak size, such as is used by paper-makers; make it hot, and stir a small lump of alum, and a small quantity of soap lather into it. Then with a brush apply it to the garment equally all over, as recommended above with the oil. If the garment be of good cloth, the size may be laid on inside.

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291. *Chinese Method of rendering Cloth Waterproof.*—To one ounce of white wax, melted, add one quart of spirits of turpentine, which, when thoroughly mixed and cold, dip the cloth in and hang it up to dry. By this cheap and easy method, muslin, as well as the strongest cloths, will be rendered impenetrable to the hardest rains, without the pores being filled up, or any injury done, when the cloth is colored.

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292. *To preserve Furs and Woollens from Moths.*—Let the former be occasionally combed while in use, and the latter be brushed and shaken. When not wanted, dry them first, let them be cool; then mix among them bitter apples from the apothecary's in small muslin bags, sew the articles in several folds of linen, carefully turned in at the edges, and keep them from damp.

Or, lay amongst them the cuttings of Russia leather.

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293. *Or*—Leaves from the tobacco plant are very effectual in keeping off moths. Lay them between the folds of the blankets, carpets, &c. Air furs, occasionally.

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294. *To prevent Moths.*—In the month of April beat your fur garments well with a small cane or elastic stick, then lap them up in linen without pressing the fur too hard, and put between

the folds some camphor in small lumps; then put your furs in this state in boxes well closed.

When the furs are wanted for use, beat them well as before, and expose them for twenty-four hours to the air, which will take away the smell of the camphor.

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295. *Easy Method of preventing Moths in Furs or Woollens.*—Sprinkle the furs or woollen stuffs, as well as the drawers or boxes in which they are kept, with spirits of turpentine; the unpleasant scent of which will speedily evaporate, on exposure of the stuffs to the air. Some persons place sheets of paper, moistened with spirits of turpentine, over, under, or between pieces of cloth, &c., and find it a very effectual method.

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296. *To preserve Furs, Woollens, &c.*—many woollen-drapers put bits of camphor, the size of a nutmeg, in papers, on different parts of the shelves in their shops; and as they brush their cloths every two, three, or four months, this keeps them free from moths; and this should be done in boxes where furs, &c., are put. A tallow candle is frequently put within each muff when laid by.

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297. *To keep Moths, Beetles, &c., from Clothes.*—Put a piece of camphor in a linen bag, or some aromatic herbs, in the drawers, among linen or woollen clothes, and neither moth nor worm will come near them.

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298. *A celebrated Blacking Cake for Boots and Shoes.*—Take one part of gum tragacanth, four parts of river water, two parts of neat's-foot, or some other softening, lubricating oil, two parts of superfine ivory-black, one part of Prussian blue in fine powder, or indigo, four parts of brown sugar-candy; boil the mixture; and when the composition is of a proper consistence, let it be formed into cakes of such a size that each cake may make a pint of liquid blacking.

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299. *Good Blacking for Boots and Shoes.*—Take of ivory black, one pound; lamp-black, half an ounce; treacle, one pound; sweet oil, one ounce and a half; coarse gum Arabic, half an ounce; green copperas, three-quarters of an ounce; and stale vinegar, three pints and a half. Mix all well together, having

first dissolved the gum in a little water; then add gradually, briskly stirring the mixture, half an ounce of oil of vitriol; let it stand two days, occasionally stirring it, and it will be fit for use.

Or, two ounces of ivory-black, one tea-spoonful of oil of vitriol, a table-spoonful of sweet-oil, and two ounces of sugar-candy, to be mixed with half a pint of vinegar.

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300. *Liquid Blacking.*—Ivory-black, quarter of a pound; treacle, half a pound, well mixed; to which add sweet oil, one pennyworth, and small beer three pints; add after, oil of vitriol, one pennyworth, which will cause it to boil. Fit for use in three days.

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301. *French Polish for Boots and Shoes.*—Logwood chips, half a pound; glue, quarter of a pound; indigo, pounded very fine, quarter of an ounce; soft soap, quarter of an ounce; isinglass, quarter of an ounce; boil these ingredients in two pints of vinegar and one of water, during ten minutes after ebullition, then strain the liquid. When cold it is fit for use. To apply the French polish, the dirt must be washed from the boots and shoes; when these are quite dry, the liquid polish is put on with a bit of sponge.

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302. *To clean White Satin Shoes.*—Rub them lengthways of the satin, with a piece of new white flannel dipped in spirits of wine. If slightly soiled, you may clean them by rubbing with stale bread.

White satin shoes should be kept in blue paper closely wrapped, with coarse brown paper outside.

To keep your thin, light slippers in shape, when you put them away, fold them ever lengthways or sideways, and tie the strings round them. You should have a covered box purposely for your shoes.

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303. *To clean Boot-tops Brown*—Mix, in the same quantity of water, one ounce of oxalic acid, half an ounce of muriatic acid, a small vial of spirits of lavender, and two tea-spoonfuls of salt of lemon. Each bottle should be carefully labeled and marked "Poison."

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304. *Directions for using the Liquid.*—For the white tops: to be scrubbed well with a clean hard brush, then sponged

well with cold water, all one way, and allowed to dry gradually in the sun, or by the fire.

Brown tops are not to be scrubbed with a brush, but sponged all over with the mixture, till all stains be removed; then sponged well with cold water, and rubbed with flannel till they be highly polished.

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305. *Shoes.*—When about being measured for shoes, place the foot firmly on the ground, as the foot is larger in a standing than in a sitting posture.

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306. *Shoes.*—One hint about shoes—a most essential and expensive article of family wear. However worn and full of holes the soles may be, if the upper leathers are whole, or soundly mended, and the stitching firm, the soles may be covered with the newly adopted article gutta percha, and at a very small expense the shoes will be rendered as good as new. We have seen shoes which even the eldest daughter of the Smith family despised as not worth carrying home, made quite sound and respectable in appearance, and to serve many months in constant wear, by being thus soled at the cost of only a few pence. Thin shoes that have been worn only in-doors, and which are laid aside on account of the tops becoming shabby, perhaps worn out, while the sewing is sound, may be made very tidy by covering with woollen cloth, or with a bit of thick knitting, or platted list, stitched on as close as possible to the regular seam.

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307. *To prevent Snow-water from penetrating Boots and Shoes.*—Take equal quantities of bees'-wax and mutton-suet, and melt them in an earthen pipkin over a slow fire. Lay the mixture, while hot, over the boots and shoes, which ought also to be made warm. Let them stand before the fire a short time, and set them aside till they are cold; then rub them with dry woollen stuff, so that you may not grease the blacking-brushes. If you black the shoes before the mixture be put on, they will afterwards take the blacking much better.

Or, boil together for half an hour, a quart of linseed oil, two ounces of resin, and half an ounce of white vitriol, and incorporate with them a quarter of a pint of spirit of turpentine, and two ounces of well-dried oak sawdust. Lay the mixture on the soles of the boots.

308. *Water-proof Boots.*—A pint of boiled linseed oil, half a pound of mutton suet, six ounces of clean bees'-wax, and four ounces of resin, are to be melted and well mixed over a fire. Of this, while warm, but not hot enough to shrink the leather, with a brush lay on plentifully over new boots or shoes, when quite dry and clean. The leather remains pliant. The New England fishermen preserve their boots water-tight by this method, which, it is said, has been in use among them above one hundred years. They can thus stand in water hour after hour without inconvenience.

309. *Water-proof Boots.*—I have had three pairs of boots for the last six years (no shoes), and I think I shall not require any more for the next six years to come. The reason is, that I treat them in the following manner: I put a pound of tallow and half a pound of rosin in a pot on the fire; when melted and mixed, I warm the boots and apply the hot stuff with a painter's brush, until neither the sole or the upper-leather will suck in any more. If it is desired that the boots should immediately take a polish, melt an ounce of wax with a tea-spoonful of lamp-black. A day after the boots have been treated with tallow and rosin, rub over them this wax in turpentine, but not before the fire. The exterior will then have a coat of wax alone, and will shine like a mirror. Tallow, or any other grease, becomes rancid, and rots the stitching as well as the leather; but the rosin gives it an antiseptic quality, which preserves the whole. Boots and shoes should be so large as to admit of wearing cork soles.—*Correspondent of Mechanics' Magazine.*

310. *To make Cloth or Outer Clothing of any description Water-proof.*—Take a quarter of an ounce of *yellow* or *Castile* soap, and one gallon of rain water; boil for twenty minutes; skim, and when cold, put in the cloth or garment; let it remain soaking twenty-four hours; take it out, and hang to drain; when half-dry, put it into the following solution:—Alum, half a pound; sugar of lead, quarter of a pound; dissolved in four gallons of rain water. Let the cloth be thoroughly soaked, and then hang to dry. This process entirely destroys the capillary attraction in the fibres and threads of the cloth, and the rain or wet pours off the surface without lodging or penetrating through the cloth. The solution has *no effect* in *altering* the texture or appearance of the cloth or article immersed. Great care must

be taken as regards the sugar of lead, not to leave it where children or any persons ignorant of its qualities can get access to it, as it is a powerful poison.

311. *To make an Oil-skin Coat or Wrapper.*—If a stout coat or wrapper is wanted, let the material be strong unbleached or brown calico. If a light one is preferred, make use of brown holland. Soak it (when made) in hot water, and hang to dry; then boil ten ounces of India-rubber in one quart of *raw linseed oil*, until dissolved; (this will require about three hours' boiling,) when cold, mix with the oil so prepared about half a pint of paint of any color which may be preferred, and of the same consistency as that used for painting wood. With a paint-brush lay a thin coat over the outside of the wrapper, brushing it well into the seams. Hang it to dry in a current of air, but sheltered from a powerful sun. When *thoroughly* dry, give it another coat; dry as before, and then give a third and last coat. The wrapper, when *well dried*, will be ready for use.

312. *To make Gutta Percha Soles.*—The gutta percha possesses properties which render it invaluable for winter shoes. *It is, compared with leather, a slow conductor of heat;* the effect of this is, that the warmth of the feet is retained, however cold the surface may be on which the person stands, and that clammy dampness, so objectionable in the wear of India rubber shoes, is entirely prevented. On first using gutta percha shoes, the wearer is forcibly struck with the superior warmth and comfort which is produced by this non-conducting property; and I confidently predict, that all those who try gutta percha, will be steady consumers.

We shall now give the method of fixing the gutta percha soles. Make the sole of the boot perfectly clean and dry, scratch it with an awl or a fork until it becomes rough, warm it before the fire, and spread over it with a hot iron or poker some of the "solution" sold for this purpose, or in the absence of this, place some of the thin parings of the gutta percha on the sole, holding it to the fire, and spreading it as before. When this has been repeated two or three times, and all is well covered, warm the gutta percha sole, and the sole of the boot at the same time, until both become soft and sticky, place the sole on the boot, and press it down carefully, beginning at the toe, so as to press out the air and make it adhere closely;

nothing more remains to be done, than as soon as it becomes hard to pare the edges with a sharp knife, and trim off as may be necessary. All the parings and old pieces should be saved, as gutta percha is not injured by use, and may be sold to the manufacturer in order to be restored and made up again.

313. *Fly Water.*—Most of the fly-waters, and other preparations commonly sold for the destruction of flies, are variously disguised poisons, dangerous and even fatal to the human species: such as solutions of mercury, arsenic, &c., mixed with honey or syrup. The following preparation, however, without endangering the lives of children, or other incautious persons, is not less fatal to flies than even a solution of arsenic. Dissolve two drachms of the extract of quassia in half a pint of boiling water; and adding a little sugar or syrup, pour the mixture on plates. To this enticing food the flies are extremely partial, and it never fails to destroy them.

A strong infusion of green tea, sweetened, is as effectual in poisoning flies, as the solution of arsenic generally sold for that purpose.

314. *To destroy Flies.*—Ground black pepper and moist sugar, intimately mixed in equal quantities, and diluted with milk, placed in saucers, adding fresh milk, and stirring the mixture as often as necessary, succeeds admirably in occasioning their death.

315. *Another way to destroy Flies.*—Pour a little simple oxymel (an article sold by druggists) into a common tumbler glass, and place in the glass a piece of cap paper, made into the shape of the upper part of a funnel, with a hole at the bottom to admit the flies. Attracted by the smell, they readily enter the trap in swarms, and by the thousands soon collected prove that they have not the wit or the disposition to return.

316. *To remove Flies.*—Flies and other insects may be kept from attacking meat, by dusting it over with pepper, powdered ginger, or any other spice, or by skewering a piece of paper to it on which a drop of creosote has been poured. The spices may be readily washed off with water before dressing the meat.

317. *To keep off Flies.*—Place camphor on or near what you wish to protect from them.

318. *Wasps and Flies.*—These insects may be killed immediately by dipping a feather in a little sweet oil, and touching their backs with it. When intent on fruit this can easily be done. Insects of different kinds are readily killed by oil; it closes up the lateral pores by which they breathe.

319. *To destroy Ants and Wasps.*—Ants are destroyed by opening the nest and putting in quick-lime, and throwing water on it. Wasps may be destroyed in the same way; only it will be requisite that the person who does it should be covered with muslin, or something over the face, hands, &c., so that the wasps shall not be able to sting them.

320. *To destroy Ants.*—Ants that frequent houses or gardens may be destroyed by taking flour of brimstone, half a pound, and potash, four ounces: set them in an iron or earthen pan over the fire till dissolved and united; afterwards beat them to a powder, and infuse a little of this powder in water; and wherever you sprinkle it the ants will die, or fly the place.

321. *Another Method.*—Corrosive sublimate, mixed well with sugar, has proved a mortal poison to them, and is the most effectual way of destroying these insects.

322. *To destroy Cockroaches, &c.*—Stir a small quantity of arsenic with some bread-crumbs, which lay near the insects' haunts; meantime, be careful to keep dogs and cats out of the way. Poisoned wafers are also made for killing cockroaches: a trap is made with a glass well, for the same purpose; but a more simple contrivance is to half-fill a glazed basin, or pie-dish, with sweetened beer or linseed oil, and set in places frequented by cockroaches. They will attack the *red* wax of sealed bottles, but will not touch *black* wax.

323. *To destroy Crickets.*—To destroy crickets at night, set dishes or saucers filled with the grounds of beer or tea, on the kitchen-floor, and, in the morning, the crickets will be found dead from excess of drinking.

324. *To drive away Fleas.*—Sprinkle about the bed a few drops of oil of lavender, and the fleas will soon disappear.

Fumigation with brimstone, or fresh leaves of penny-royal sewed in a bag, and laid in the bed, will have the desired effect.

325. *Liquor for destroying Caterpillars, Ants, and other Insects.*—Take a pound and three-quarters of soap, the same quantity of flower of sulphur, two pounds of champignons, or puff-balls, and fifteen gallons of water. When the whole has been well mixed, by the aid of a gentle heat, sprinkle the insects with the liquor, and it will instantly kill them.

326. *To destroy Rats.*—Cut a number of corks or a piece of sponge as thin as sixpences; stew them in grease, and place them in the way of the rats. They will greedily devour this delicacy, and will die of indigestion.

327. *To kill Rats, another way.*—There are two objections to the common mode of killing rats, by laying poison for them; first, the danger to which it exposes other animals and even human beings; second, the possibility that the rats may cause an intolerable stench, by dying in their holes. The following method is free from these objections, and has proved effectual in clearing houses infested with these vermin.

Oil of amber and ox-gall in equal parts, add to them oatmeal or flour sufficient to form a paste, which divide into little balls and lay them in the middle of a room which rats are supposed or known to visit. Surround the balls with a number of vessels filled with water. The smell of the oil will be sure to attract the rats, they will greedily devour the balls, and becoming intolerably thirsty, will drink till they die on the spot.

328. *To expel Rats.*—Catch one in a trap; muzzle it, with the assistance of a fellow-servant, and slightly singe some of the hair; then smear the part with turpentine, and set the animal loose; if again caught, leave it still at liberty, as the other rats will shun the place which it inhabits. It is said to be a fact that a toad placed in a cellar will free it from rats.

Rats may be expelled from cellars and granaries simply by scattering a few stalks and leaves of mullen in their paths. There is something very annoying in this plant to the rat. It affords, therefore, a very easy method of getting rid of a most

perplexing evil, and much more economical and less troublesome than gunpowder, "rat exterminator," cats, or traps.

329. *To destroy Fleas and other Vermin on Animals.*—To destroy them on dogs, rub the animal, when out of the house, with the common Scotch snuff, except the nose and eyes. Rub the powder well into the roots of the hair. Clear lime-water destroys the flea-worm without injuring the skin or hair.

Oil of turpentine, when applied to animals, which were covered with insects, destroyed the insects, without hurting the animal.

330. *To destroy Bugs.*—Mix half a pint of spirits of turpentine and half a pint of best rectified spirits of wine, in a strong bottle, and add in small pieces about half an ounce of camphor, which will dissolve in a few minutes. Shake the mixture well together; and, with a sponge or brush dipped in it, well wet the bed and furniture where the vermin breed. This will infallibly destroy both them and their nits, though they swarm. The dust, however, should be well brushed from the bedstead and furniture, to prevent, from such carelessness, any stain. If that precaution is attended to, there will be no danger of soiling the richest silk or damask. On touching a live bug with only the tip of a pin put into the mixture, the insect will be instantly deprived of existence, and should any bugs happen to appear after using the mixture, it will only be from not wetting the linen, &c., of the bed, the foldings and linings of the curtains near the rings or the joints, or holes in and about the bed or head-board, in which places the vermin nestle and breed; so that those parts being well wetted with more of the mixture, which dries as fast as it is used, and pouring it into the joints and holes, where the sponge and brush cannot reach, it will never fail totally to destroy them. The smell of this mixture, though powerful, is extremely wholesome, and to many persons very agreeable. It exhales, however, in two or three days. Only one caution is necessary; but that is important. The mixture must be well shaken when used; *but never applied by candle light*, lest the spirits, being attracted by the flare of the candle, might cause a conflagration.

331. *Kitchen Cloths.*—The four kinds of cloths requisite for the kitchen, are knife-cloths, dusters, tea and glass-cloths.

Knife-cloths should be made of coarse sheeting. Dusters are generally made of mixed cotton and linen. The best material for tea and glass-cloths, is a sheet which has begun to wear thin.

Besides the above cloths, are knife-tray-cloths, house-cloths for cleaning, pudding and cheese-cloths, and towels.

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332. *Clothes' Posts* soon decay at the bottom, if left standing in the ground; but, if fitted into sockets so as to be removable, they will last for years. The sockets should be made of one-inch elm, eighteen inches in length, tapering downwards. When finished, they ought to be about three inches square inside, at the upper end. They are to be driven firmly into the earth till just level with the surface. The posts are then made to drop in and stand firm, and can be taken out, and put under shelter when not in use. A cover should be fitted to each socket, to keep litter from falling in when the post is removed. A drying-ground should not be too much exposed to the wind, as the violent flapping tears the corners of table-cloths, sheets, &c., and overblown linen feels flabby after mangling.

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333. *Out-houses and Cellars.*—If these have not been recently cleansed, have them thoroughly cleaned out and white-washed. A dirty cellar is an abomination, and the fruitful source of many diseases. Let all your out-buildings have a thorough overhauling and repairing.

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334. *To purify Houses.*—An able chemist recommends a mixture of one pound of chloride of lime in ten gallons of water. Throw a quart of this daily down the sink or water-closet. It will not cost five cents a week.

One of the best and most pleasant disinfectants is coffee. Pound well-dried raw coffee-beans in a mortar, and strew the powder over a moderately heated iron plate. The simple traversing of the house with a roaster containing freshly roasted coffee will clear it of offensive smells.

PART II.

HEALTH AND BEAUTY.

Rules for the preservation of Health, and simple Recipes found often efficacious in common diseases and slight injuries—Directions for preparing Remedies and ministering to the Sick and Suffering—The Toilet, or hints and suggestions for the preservation of Beauty, with some useful Recipes for those who need them.

335. *Means of preserving Health.*—Light and sunshine are needful for your health. Get all you can; keep your windows clean. Do not block them up with curtains, plants, or bunches of flowers: these last poison the air in small rooms.

Fresh air is needful for your health. As often as you can, open all your windows, if only for a short time, in bad weather; in fine weather, keep them open, but never sit in draughts. When you get up, open the windows wide, and throw down the bed-clothes, that they may be exposed to fresh air some hours daily before they are made up. Keep your bed-clothes clean; hang them to the fire when you can. Avoid wearing at night what you wear in the day. Hang up your day clothes at night. Except in the severest weather, in small crowded sleeping-rooms, a little opening at the top of the window-sash is very important; or, you will find one window-pane of perforated zinc very useful. You will not catch cold half so easily by breathing pure air at night. Let not the beds be directly under the windows. Sleeping in exhausted air creates a desire for stimulants.

Pure water is needful for your health. Wash your bodies as well as your faces, rubbing them all over with a coarse cloth.

If you cannot wash thus every morning, pray do so once a week. Crying and cross children are often pacified by a gentle washing of their little hands and faces—it soothes them. Babies' heads should be washed carefully, every morning, with yellow soap. No scurf should be suffered to remain upon them. Get rid of all slops and dirty water at once, but do not throw them out before your doors; and never suffer dead cabbage-leaves or dirt of any kind to remain there; all these poison the air, and bring fevers. All bad smells are *poison;* never rest with them. Keep your back yards clean. Pig-sties are very injurious; slaughter-houses are equally hurtful: the smells from both excite typhus fever, and cause ill health. Frederick the Great said, that one fever was more fatal to him than seven battles. Disease, and even death, is often the consequence of our own negligence. Wash your rooms and passages at least once a week; use plenty of clean water; but do not let your children stay in them while they are wet—it may bring on croup or inflammation of the chest. If you read your Bibles—which it is earnestly hoped you do—you will find how cleanliness, both as to the person and habitation, was taught to the Jews by God himself; and we read in the 4th chapter of Nehemiah, that when they were building their second temple, and defending their lives against their foes, having no time for rest, they contrived to put off their clothes for washing. It is a good old saying, that *Cleanliness is next to Godliness.* See Heb. x. 22.

Wholesome food is needful for your health. Buy the most strengthening. Pieces of fresh beef and mutton go the farthest. Eat plenty of fresh salt with food; it prevents disease. Pray do not let your children waste their pocket-money in tarts, cakes, sugar-plums, sour fruit, &c.; they are very unwholesome, and hurt the digestion. People would often, at twenty years of age, have a nice little sum of money to help them on in the world, if they had put in the savings-bank the money so wasted. Cocoa is cheaper and much more nourishing than tea. None of these liquids should be taken *hot*, but lukewarm; when hot, they inflame the stomach, and produce indigestion. All kinds of intoxicating drinks are to be avoided, or taken in the utmost moderation. If possible, abstain from them altogether. Money saved from drink, will help to educate your children, and make your homes happier.

We are all made to breathe the pure air of heaven, and therefore much illness is caused by being constantly in-doors. This

is especially the case with mothers of families, young milliners, ironers, shoe-makers, tailors, &c. Let such persons make a point, whenever it is possible, of taking exercise in the *open air* for at least an hour and a half, *daily*. Time would be saved in the long-run, by the increased energy and strength gained, and by the warding off of disease.

Be sure to get your children vaccinated, between the third and sixth month after birth, before teething begins, and when they are in a good state of health for it. This would save a great many lives. On no account give your children laudanum, or any kind of sleeping medicine; numbers are killed by it.

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336. *Directions in severe Sickness.*—Whenever any one of your family is taken violently ill, send as soon as possible for the most skilful physician—and follow, carefully, his orders. But, many times, the mother is the best physician, and the only one needed for her children, if she has been trained to take proper care of her own health, as every woman should be. The following recipes and directions may be of great service to young mothers, and those who have not been accustomed to minister to the sick.

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337. *To purify the Chambers of the Sick.*—Close the windows and doors of the room to be purified, except one door; close also the chimney aperture, except two or three inches at the bottom, and remove all the iron and brass furniture; then put three table-spoonsful of common salt into a dish or pan, place it upon the floor of the apartment, and pour at once upon the salt a quarter of a pint of oil of vitriol; retire, and close the room for forty-eight hours, during which time vapor will continue to rise and diffuse itself completely through the room, so as to destroy the matter on which infection depends. The room may then be entered, the doors and windows thrown open, and a fire made in the grate, so that the apartment may be perfectly ventilated.

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338. *To prevent Infection.*—As a preservative, carry with you and smell occasionally, a handkerchief sprinkled with this mixture; half an ounce of spirits of camphor, half a pint of water, and five ounces of pyroligneous acid.

Cascarilla bark is good to smoke, to prevent the effects of malaria, and in sick rooms to correct bad effluvia. It yields a

fine aromatic odor, and is very wholesome for sedentary and studious people to smoke, if mixed with good tobacco. The proportions for either of these purposes are as follow: one pound of Turkey tobacco, four ounces of Dutch canister tobacco, and one ounce of Cascarilla bark, broken small; mix the above, and smoke a pipe of it every evening, when the house is shut up; it is also a good digester after meals.

339. *Fumigating Pastilles.*—Pound and mix gum benjamin and frankincense in powder, of each two drachms; gum myrrh, storax, cascarilla bark, and nitre, of each, powdered, one ounce and a half; and charcoal powder, one ounce: moisten, and shape into pastilles with gum-water, and a very little turpentine.

The stalks of dried lavender, if burnt, have an agreeable scent, and form a substitute for pastilles; they may be cut small, and burnt in little vessels.

340. *To use Chloride of Lime.*—This preventive of contagion may be used as follows: stir one pound of the chloride of lime into four gallons of water; allow it to settle for a short time, pour off the clear solution, and keep it in well-corked bottles.

In houses infected, sprinkle the rooms morning and evening with the above liquid; and pour some of it into shallow dishes or basins. Sprinkle it about the room and bed-linen occasionally, and admit fresh air. Infected linen should be dipped in the mixture about five minutes, and then in common water, before it is sent to the wash.

A wine-glassful added to the water of a night-chair or bed-pan, will prevent any smell. To destroy the effluvia from drains, sewers, cesspools, &c., pour into them a quart of the mixture, with a pail of water.

Meat sprinkled with, or dipped in the mixture, and hung in the air, will not be attacked by flies, nor be tainted, for some time.

Water in cisterns may be purified, and its animalcula killed, by putting about a pint of the mixture to one hundred gallons of water.

This mixture will also destroy bugs, if the joints and crevices of bedsteads be washed with it. It will likewise remove the smell of paint in a day, if the newly painted room be sprinkled with it, and if some be placed there in dishes or saucers.

341. *Disinfecting Liquid.*—In a wine-bottle full of cold water dissolve two ounces of sugar of lead, and add two ounces of aqua-fortis. Shake the mixture well. A very small quantity of the liquid in its strongest form should be used for cleansing all chamber utensils. To remove offensive odors, dilute the liquid with eight or ten parts of water, moisten clean cloths thoroughly with it, and hang them in various parts of the room. The offensive gases are neutralized by chemical action. Fumigation is merely substituting one odor for another. In all practicable cases, *fresh air*, and plenty of it, is far the best disinfectant.

342. *To prevent Abrasions of the Skin in persons confined to their beds; a very valuable recipe.*—Apply occasionally to the tender parts of the body, with a feather, this mixture. Beat to a strong froth the white of an egg, then drop in gradually, while beating it, two tea-spoonfuls of spirits of wine. Bottle it for use.

343. *To prevent Discolorations of the Skin after a blow or fall.*—Moisten a little dry starch or arrow-root with cold water, and lay it on the injured part. It should be done immediately, so as to prevent the action of the air upon the skin; however, it may be applied with good effect some hours afterwards. It is a French receipt, and is quite valuable.

344. *A recipe for Neuralgia in the Face.*—Make a lotion with half a pint of rose-water and two tea-spoonfuls of white vinegar. Apply it to the part affected, three or four times a-day, using a fresh linen cloth each time. In two or three days the pain will pass away. This has been an effectual cure with many, but as the disease arises from various causes, there is no specific for it.

345. *Eye Water for weak eyes.*—Infuse in boiling water, till cold, half an ounce of poppy heads, and the same quantity of chamomile flowers. Strain this mixture, and add two table-spoonfuls of vinegar, and one of brandy. Apply it warm, night and morning.

346. *Another.*—Put into a two-ounce phial fifteen drops of laudanum, fill it with two-thirds of rose-water, and one-third of rectified spirits of Mindererus. Use it with a sponge.

347. *To cure a Bruise in the Eye.*—Take conserve of red roses, or a bruised apple, put them in a fold of thin cambric, apply it to the eye, and it will draw the bruise out.

348. *Cold or Inflammation of the Eyes.*—Mix a few bread crumbs with the white of an egg, put it in a bag of soft muslin, and apply it to the eye. It will afford relief in a few minutes, and generally a cure in a day. It is best applied at night, or when lying down. When removed, bathe the eye well with warm water, using a bit of muslin, not a sponge.

349. *Carvacrol, the new remedy for the Tooth-ache.*—Dr. Bushman gives (in the *Medical Times*) the following account of this new compound, which, though well known in Germany as a quick and effectual cure for one of the most worrying ills "that flesh is heir to," is now for the first time published in England. Carvacrol is an oily liquid, with a strong taste and unpleasant odor. It may be made by the action of iodine on oil of caraway or on camphor. A few drops applied on cotton wool (to a decayed and painful tooth) give immediate relief. Carvacrol much resembles creosote in appearance, and is used in similar cases of tooth-ache, but its effect is much more speedy and certain.

350. *To cure Tooth-ache.*—A remedy, often effectual, is to fill the mouth with warm water, and immediately after with cold.

351. *Another cure for Tooth-ache.*—Powdered alum will not only relieve the tooth-ache, but prevent the decay of the tooth.

352. *Gum-boils.*—A gum-boil is sometimes a primary disease, depending on an inflammation of the gums from accidental and common causes, in which case the lancet, or leaving it to nature, soon restores the gum to a healthy state; but it more generally arises from a carious tooth, in which case extraction is necessary. If there be any constitutional disturbance about the face, leeches and purgatives, and the usual means for subduing inflammation may be resorted to.

353. *Diseases of the Ear.*—Sometimes ear-ache is connected with chronic ulceration in the internal and external part of the

ear—when injections of warm water and soap are advisable. In this case, there is sometimes a constant fœtid discharge—for which the following mixture has been recommended:—Mix three drachms of ox-gall and one drachm of balsam of Peru. Put a drop on a little cotton in the ear.

354. *Temporary Deafness.*—If the ear be inflamed, inject water into it with a syringe, as warm as the patient can bear it, and foment the part with the decoction of poppy-heads and chamomile flowers. Should this not relieve the pain, a drop of oil of cloves with a little oil of almonds should be dropped into the ear, and cotton wool put into it. If the ear discharge much, inject warm water with Castile soap into it.

355. *For a Pain in the Ear.*—Oil of sweet almonds, two drachms, and oil of amber, four drops. Apply four drops of this mixture, when in pain, to the part affected.

356. *Another cure for the Ear-ache.*—Dip a little cotton into a mixture of oil of sweet almonds and laudanum, and put it into the ear; or, apply a small poultice, in which is put a raw chopped clove of garlic; or, roast a small onion, and put as much of the inside into the ear as you conveniently can.

357. *To kill Earwigs, or other Insects, which may accidentally have crept into the Ear.*—Let the person under this distressing circumstance lay his head upon a table, the side upwards that is afflicted; at the same time, let some friend carefully drop into the ear a little sweet oil or oil of almonds. A drop or two will be sufficient, which will instantly destroy the insect and remove the pain, however violent.

358. *Bleeding at the Nose.*—In obstinate cases, blow a little gum Arabic powder up the nostrils through a quill, which will immediately stop the discharge.

359. *Another cure for Bleeding at the Nose.—Elevating the patient's arm* will often have the desired effect. The explanation is based upon physiological grounds: the greater force required to propel the blood through the vessels of the arm, when elevated, causes the pressure upon the vessels of the head to be diminished, by the increased action which takes place in the

course of the brachial arteries. If the theory be sound, both arms should be elevated.

360. *To destroy Corns and Warts.*—Put into an earthen pipkin a quarter of a pint of linseed oil, to which add one ounce of resin and a little litharge. Warm them together; spread them upon leather, and apply them to corns or warts.

361. *To destroy Warts.*—Dissolve as much common washing soda as the water will take up; wash the warts with this for a minute or two, and let them dry without wiping. Keep the water in a bottle, and repeat the washing often. It will remove the largest warts.

Caustic is an effectual though troublesome application. The juice of the common annual spurge plant is as efficacious a remedy; as is the bark of the willow tree, burnt to ashes, mixed with vinegar, and applied to the warts. The juice of the marigold is another remedy.

362. *A certain cure for Warts.*—Steep in vinegar the inner rind of a lemon for twenty-four hours, and apply it to the wart. The lemon must not remain on more than three hours, and should be applied fresh every day. To apply acetic acid with a camel's hair-brush, is still better.

363. *Corns on the Feet.*—These are usually made by wearing shoes over-tight; but, walking on pavement in very thin shoes will cause corns and bunions, because of bruising the feet on the hard stones.

364. *To prevent Corns from growing on the Feet.*—Easy shoes; frequently bathing the feet in lukewarm water, with a little salt or potashes dissolved in it.

365. *Sir H. Davy's Corn Solvent.*—Potash, two parts; salts of sorrel, one part; each in fine powder. Mix, and lay a small quantity on the corn for four or five successive nights, binding it on with a rag.

366. *To cure Corns.—An effectual remedy.*—The cause of corns, and likewise the torture they occasion, is simply friction; and to lessen the friction, you have only to use your toe as you do in like circumstances a coach wheel—lubricate it with some

oily substance. The best and cleanest thing to use, is a little sweet oil rubbed on the affected part (after the corn is carefully pared) with the tip of the finger, which should be done on getting up in the morning, and just before stepping into bed at night. In a few days the pain will diminish, and in a few days more it will cease, when the nightly application may be discontinued.

367. *Another cure for Corns.*—Place the feet for half an hour for two or three nights successively, in a pretty strong solution of common soda. The alkali dissolves the indurated cuticle, and the corn falls out spontaneously, leaving a small excavation, which soon fills up. This is an almost certain remedy.

368. *To cure soft Corns.*—Dip a soft linen rag in turpentine, and place it over the corn night and morning. In a few days the corn will disappear. A little sweet oil rubbed on them is often of great service. Or, a small piece of cotton placed between the toes is sometimes efficacious; or, the juice or pulp of a lemon.

369. *To cure Bunions in their commencement.*—Bind the joint tightly, either with broad tape or adhesive plaster. The strip should be kept on as long as the least uneasiness is felt. It should wrap quite round the foot.

370. *Lotion for Chilblains.*—Mix distilled vinegar and spirit of mindererus, of each four ounces, with half an ounce of borax.

In common cases of chilblains, apply pieces of soft linen, moistened with spirits of camphor, soap liniment, camphor liniment, &c. When the swellings break, apply emollient ointments for a few days. Equal quantities of sweet oil, lime water, and spirits of wine, are also an excellent remedy for chilblains

371. *Simple remedy for Chilblains.*—Soak them in warm bran and water, then rub them well with mustard-seed flour; but it will be better if they are done before they break.

372. *Another remedy.*—Cut an onion in thick slices, and with these rub the chilblains thoroughly, on two or three nights, before a good fire, and they will soon disappear.

373. *Sir A. Cooper's Chilblain Liniment.*—One ounce of camphorated spirit of wine, half an ounce of liquid subacetate of lead; mix, and apply in the usual way three or four times a day. Some persons use vinegar as a preventive; its efficacy might be increased, by the addition to the vinegar of one-fourth of its quantity of camphorated spirit.

374. *Note.*—Those who are most liable to chilblains, should, on the approach of winter, cover the parts most subject to be affected, with woollen gloves or stockings, and not expose the hands or feet too much to wet and cold.

375. *To stop violent Bleeding from a Cut.*—Make a paste, by mixing fine flour with vinegar, and lay it on the cut.

376. *An excellent Styptic.*—The outside woof of silk-worms has been tried with great success by several people, more especially by a lady, who, in mending a pen, cut her thumb to the bone, and through part of the nail; it bled profusely; but, by trying this styptic, and binding up the wound, the hemorrhage stopped, and the wound healed in three days.

377. *A new and useful Styptic.*—Take brandy, or common spirit, two ounces; Castile soap, two drachms; potash, one drachm; scrape the soap fine, and dissolve it in the brandy; then add the potash, and mix it well together, and keep it close stopped from the air in a phial. When you apply it, warm it in a vessel, or dip pledges of lint into it, and the blood will immediately congeal. It operates by coagulating the blood, both a considerable way within the vessels, as well as the extravasated blood without, and restraining, at the same time, the mouths of the vessels.

It forms a valuable embrocation, in cases of tumors or swellings from bruises, by being frequently rubbed on the part. It is also used in a similar manner for rheumatic pains.

378. *To prevent Wounds from mortifying.*—Sprinkle sugar on them. The Turks wash fresh wounds with wine, and sprinkle sugar on them. Obstinate ulcers may be cured with sugar dissolved in a strong decoction of walnut leaves.

379. *To cure Ring-worms.*—Dissolve borax in water, and apply it: at first, it will produce a burning sensation and red-

ness; it should then be discontinued for a few days, and being resumed, the ring-worm will soon disappear.

To sponge the head daily with vinegar and water, in the proportion of half a pint of vinegar to a pint and a half of water, will prevent or cure ring-worms.

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380. *Another cure for Ring-worms*—To one part of sulphuric acid, add about twenty parts of water. Use a brush or feather, and apply it to the part, night and morning. A very few dressings will generally cure. If the solution is too strong, dilute it with more water; and if the irritation is excessive, rub a little oil or other softening applicant; but avoid soap.

While the patches are in an inflamed and irritable condition, it is necessary to limit the local applications to regular washing or sponging with warm water, or some softening fomentation.

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381. *Cure for Erysipelas.*—A simple poultice made of cranberries, pounded fine, and applied in a raw state, has proved a certain remedy.

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382. *Remedy for fainting.*—First place the patient in the horizontal posture, throw cold water over the face, and bathe the hands with vinegar and water; loosen the dress, and admit a free current of fresh, cool air. Pungent salts, ether, or *eau de Cologne*, should be held occasionally to the nose, and the temples should be rubbed with either of the two latter. When the patient has partly recovered, a small quantity of wine, cold water, or ten or twenty drops of sal-volatile or ether, in water, should be given.

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383. *Remedy for Fits.*—If a person fall in a fit, let him remain on the ground, provided his face be pale; for should it be fainting or temporary suspension of the heart's action, you may cause death by raising him upright, or by bleeding; but if the face be red or dark-colored, raise him on his seat, throw cold water on his head immediately; cold water is the best restorative.

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384. *German method of preventing Hysterics.*—Caraway seeds, finely pounded, with a small proportion of ginger and salt, spread upon bread and butter, and eaten every day, espe-

cially early in the morning, and at night, before going to bed, are successfully used in Germany, as a domestic remedy against hysterics.

385. *Stomachic Mixture.*— Camphor julep, one ounce; sweet spirit of nitre, half an ounce; compound tincture of cardamoms, spirit of anise-seed, of each five drachms; oil of caraway, twelve drops; syrup of ginger, two drachms; peppermint-water, two drachms. Mix. A table-spoonful occasionally in flatulency and dyspepsia.

386. *Red lavender drops for Nervous Attacks.*—Fill a quart bottle with the blossoms of lavender, and pour on it as much brandy as it will contain; let it stand ten days, then strain it, and add of nutmeg bruised, cloves, mace, and cochineal, a quarter of an ounce each, and bottle it for use. In nervous cases, a little may be taken dropped on a bit of sugar; and in the beginning of a bowel complaint, a tea-spoonful, taken in half a glass of peppermint water, will often prove efficacious.

387. *Eggs in Jaundice.*—The yolk of an egg, either eaten raw, or slightly boiled, is perhaps the most salutary of all the animal substances. It is a natural soap, and, in all jaundice cases no food is equal to it. When the gall is either too weak, or, by accidental means, is not permitted to flow in sufficient quantity into the duodenum, our food, which consists of watery and oily parts, cannot unite so as to become chyle. Such is the nature of the yolk of an egg, that it is capable of uniting water and oil into an uniform substance, thereby making up for the deficiency of natural bile.—*Dr. A. Hunter.*

388. *Aperient for Children.*—Gingerbread made with oatmeal instead of flour, is a very useful aperient for children.

389. *Cramp.*—Cramp in the calves of the legs is a very disagreeable complaint, to which those who have their legs confined in tight boots are subject in travelling. An effectual preventative of this pain, is to stretch out the heel of the leg as far as possible, at the same time drawing up the toes towards the body.

A garter applied tightly round the limb affected will, in most cases, speedily remove this complaint. When it is more obsti-

nate, a brick should be heated, wrapped in a flannel bag, and placed at the foot of the bed, against which the person troubled may place his feet. *No remedy, however, is equal to that of diligent and long-continued friction.*

Cramp is apt to attack the calves of the legs and toes soon after retiring to rest. Get out of bed, and exercise the muscles vigorously.

390. *For Spasms.*—Mix four table-spoonsful of camphor julep and twenty drops of sal-volatile, for a dose, to be repeated twice or thrice a day.

391. *To apply Leeches.*—Make the part clean and dry, and dry the leeches in a clean cloth; if this fail, scratch the surface of the skin with a point of a lancet, and apply the leech on the spot, moistened with the blood. To apply a number of leeches, put them into a very small wine-glass, which hold over them till they are fixed. If the skin be much inflamed and heated, pour a little tepid water into the water containing the leeches, before they are taken out to be applied. If sulphur be taken internally, or applied externally, leeches will not bite; neither will they bite if the skin be covered with perspiration; or if there be tobacco smoke or vinegar-vapor in the room.

All that is requisite to stop the bleeding, after the leech is taken away, is constant pressure on the spot; a piece of sponge or cotton, the size of a pin's head, is to be put upon the aperture, and kept there by cross slips of adhesive plaster spread upon linen, or the surgeon's strapping: if greater pressure be necessary, some linen may be placed between the stopper and the plaster.

392. *A useful embrocation for Rheumatism, Lumbago, or Strains.*—Half an ounce of strongest camphorated spirit, one ounce spirits of turpentine, one raw egg, half pint best vinegar. Well mix the whole, and keep it closely corked. To be rubbed in three or four times a day. For rheumatism in the head, or face-ache, rub all over the back of the head and neck, as well as the part which is the immediate seat of pain.

393. *For Gout and Rheumatism.*—Mix in one pound of honey one ounce of flour of sulphur, half an ounce of cream of tartar, two drachms of ginger, in powder, and half a nutmeg, grated: for rheumatism, add half a drachm of gum-guaiacum,

powdered. The full dose is two tea-spoonsful at bed-time and early in the morning, in a tumbler of hot water. This is "the Chelsea Pensioners' recipe."

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394. *Influenza.*—Influenza is an Italian word, and means what we express in English by almost the same word, influence. The word as applied to this disease, originated from the belief held by our ancestors, of the influence of the stars upon human affairs. When a complaint suddenly appeared, and affected great numbers without an obvious cause, the visitation was ascribed to the stars. Whatever might have been the origin of the name, it is an appropriate one, for the Influenza certainly springs from some pervading influence. It may, for anything we can prove to the contrary, be occasioned by some subtle poison diffused throughout the atmosphere, which medical men call a *miasm.* Bad air, rising from marshy ground, occasions ague; and bad air arising from drains in towns, from cess-pools, and other collections of filth, gives rise to the worst kinds of fever. And it is not a matter of chance: the ague will continue in marshy countries till these are drained; and in the dirty quarters of a large town, there is sure to be typhus fever. If we cannot, in these cases, see, taste, or touch the bad air, or even smell it, we know that fens poison the air with a matter that causes ague, and animal refuse with what causes fever and many other diseases. But, the existence of a peculiar poison in the air in influenza, is very doubtful. It is likely, however, and generally believed by medical men, that influenza arises from certain states or changes in the air connected with heat and moisture. Now, though it appears in hot weather and cold, in dry and wet, it may still depend on certain conditions of the weather, just as a person will sometimes take a cough in a warm moist day, and again in a dry east wind; and just, in fact, as we see a fog, which depends on atmospheric changes, produced under different circumstances. The brisk air of the country often gives town-people a head-cold, and country people sometimes suffer in the same way when they visit town. During every season, certain people have "head-colds," coughs, and "feverish colds." These are produced by certain states of climate acting on certain states of constitution. At particular seasons such complaints abound—at others they abound still more; and again, from some singularity, they prevail so much, that people say, there is an *Influenza.*

In simple cases, confinement to a pure and temperate air, warm drinks, and a warm bath, or at least a warm foot-bath, with an extra blanket, and a little more rest than usual, keeping to mild food and toast and water, and taking, if necessary, a dose of aperient medicines—is all that is required. In serious cases, the domestic treatment must become professional. Mustard plasters to the back, relieve the head-ache. Squills, and other medicines, "loosen" the outstanding cough. Bark and wine, and even cold baths, are sometimes requisite for the weakness left behind. But these things can only be used with discrimination by a regular professional man.

395. *For the Breath.*—Persons who suffer from difficulty of breathing and oppression on the chest, will find great relief from the following simple contrivance. A tea-kettle is to be kept boiling, either over a fire or over a common night-lamp or nursing-candlestick. A tin tube is to be fitted on to the spout of the tea-kettle, of such length and form as to throw the steam in front of the sick person, who will then breathe in it. This prevents the distressing sensation occasioned by inhaling the cold night air, which will be felt by persons suffering from asthma or water on the chest, and which is not obviated either by clothing or fire.

396. *To relieve Asthma.*—Soak some blotting-paper in a strong solution of saltpetre; dry it, take a piece about the size of your hand, and on going to bed, light it, and lay it upon a plate in your bed-room. By doing so, persons, however badly afflicted with asthma, will find that they can sleep almost as well as when in health. (Many persons have experienced relief from the use of this specific.)

397. *Relief for Asthma—another way.*—Mix two ounces of the best honey with one ounce of castor oil, and take a teaspoonful, night and morning.

398. *Gargle for Sore Throat.*—On twenty five or thirty leaves of the common sage, pour a pint of boiling water; let the infusion stand half an hour. Add vinegar enough to make it moderately acid, and honey to the taste. Use it as a gargle, several times a day. This combination of the astringent and emollient principle seldom fails to produce the desired effect.

399. *To prevent Lamps from being pernicious to Asthmatic persons, or others liable to Complaints of the Chest.*—Let a sponge, three or four inches in diameter, be moistened with pure water, and in that state be suspended by a string or wire, exactly over the flame of the lamp, at the distance of a few inches; this substance will absorb all the smoke emitted during the evening or night; after which, it should be rinsed in warm water, by which means it will be again rendered fit for use.

400. *The use of Tar-water in expanding the Lungs of Public Speakers, &c.*—It has been found by the experience of many, that drinking tar-water very much deterges and opens the lungs, and thereby gives a very sensibly greater ease in speaking. A quart of tar is to be stirred six minutes in a gallon of water; but if there be somewhat less tar, it may do as well, especially at first, to try how it sits on the stomach. Take about one-fourth of a pint, at four several times, at a due distance from meals. Begin taking it in the spring for about fourteen days, and continue it for a greater length of time, as occasion may require.

401. *To prevent Danger from Wet Clothes.*—Keep if possible in motion, and take care not to go near a fire or into any very warm place, so as to occasion a sudden heat, till some time after you have been able to procure dry clothes.

402. *Cold and Damp Feet.*—Nothing can be more erroneous than the notion that by pouring spirits into boots and shoes, when the feet are wet, will prevent the effects of cold; on the contrary, the practice often produces cold, inflammation, and obstruction in the bowels. When the spirit reaches the feet, it immediately evaporates: the stronger it is, the more quickly it evaporates, and the greater is the cold produced.

403. *For Whooping Cough.*—Mix two tea-spoonfuls of paregoric elixir, one table-spoonful of oxymel of squills, and the same quantity of water and mucilage of gum-arabic. A tea-spoonful may be taken three or four times a-day, or when the cough is troublesome.

Treat the whooping cough with the same care as you would any other cough. Keep the children warmly clothed, and dryly lodged, and in the house, at all times, except in warm sunny

days, when air and exercise in moderation, observing that they do not overheat themselves, may do good. Put their feet in a pan of warm water just before they go to bed, and be careful to wipe them dry and wrap them in flannel. During the day they must wear woollen stockings and thick-soled shoes. Let their drink be toast-water, tea and raspberry vinegar mixed with water, two table-spoonfuls to a half-pint, or less if it be very sharp. Red or black currant-jelly dissolved in water makes a pleasant, cool drink. Be sure you give no kind of quack medicines—but an occasional dose of simple opening medicine, if the bowels are confined; and a quarter of a grain, or half a grain of plain ipecacuanha powder in a tea-spoonful of gruel or jelly at bed-time. Rub the chest and between the shoulders, with equal parts of rum and turpentine, adding a little oil, if it is too harsh for the skin. The child might suck an ipecacuanha lozenge two or three times a-day. Effervescent, saline draughts are very grateful and beneficial, where there is not only continual nausea, but frequent sickness from the spasmodic nature of the cough. If it be attended with pain in the chest or side, seek advice from a medical man without delay.

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404. *For common Coughs.*—Mix one ounce of oil of almonds, one drachm of powdered gum arabic, one ounce of syrup, and one ounce and a half of water; take a tea-spoonful or two occasionally.

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405. *Winter Cough.*—Mix two ounces of oxymel of stramonium with six ounces of the decoction of Iceland moss; take a dessert-spoonful when the cough is troublesome.

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406. *For Cough and Hoarseness.*—Beat well a newly laid egg, and stir it into a quarter of a pint of new milk, warmed, to which add a table-spoonful of capillaire.

A piece of anchovy will almost instantly restore the just tone of voice to any one who has become hoarse by public speaking.

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407. *White Mixture for Coughs.*—Beat well the yolk of an egg, mix with it in a mortar half a drachm of powdered spermaceti, a little loaf sugar and twenty drops of lauda-

num (tincture of opium); add a gill of water, and mix well: a table-spoonful of this mixture will relieve an obstinate cough.

Or, mix half a pint of almond emulsion, two drachms of syrup of poppies, the same of oxymel of squills, and one drachm of powder of gum tragacanth; two table-spoonfuls to be taken often.

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408. *Colds.*—A daily exposure to the outward air is absolutely necessary to secure us against the injurious influence of our variable climate. For cure of catarrh, reduce the amount of food, take exercise, keep the bowels open, and bathe the feet in warm water at bed-time.—*Henderson.*

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409. *For a Cold in the Head.*—What is called a head-bath is useful. Fill a wash-hand basin with boiling water, and add an ounce of flour of mustard; then hold the head, covered with a cloth to prevent the escape of the steam, over the basin as long as any steam arises.

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410. *For a troublesome Cough.*—Take of treacle and the best white wine vinegar six table-spoonfuls each; add forty drops of laudanum; mix it well, and put it into a bottle. A tea-spoonful to be taken occasionally when the cough is troublesome.

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411. *For a sudden Hoarseness.*—Mix one tea-spoonful of sweet spirits of nitre in a wine-glassful of water. This may be taken two or three times a day.

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412. *Hoarseness.*—A piece of flannel, dipped in brandy, and applied to the chest, and covered with a dry flannel, is to be worn all night. Four or six small onions, boiled, and put on buttered toast, and eaten for supper, are likewise good for colds on the chest.

413.—*Children's Coughs.*—A few tea-spoonfuls of warm treacle taken occasionally, and particularly at bed-time, or when the cough is troublesome, will be found beneficial, especially for infants and children.

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414. *For a "hacking" Cough.*—Dissolve an ounce of mutton suet in a pint of milk, and drink it warm.

415. *For a Cough.*—Mix vinegar and treacle in equal quantities, and let a tea-spoonful be taken occasionally, when the cough is troublesome. This is the recipe of Dr. James, of Carlisle.

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416. *Quinsy, or Ulcerated Sore Throat.*—Bake or roast three or four large onions or six smaller ones, till soft. Peel them quickly, and beat them flat with a rolling-pin or glass bottle. Then put them immediately in a thin muslin bag that will reach from ear to ear, and about three inches deep. Apply it speedily, and as warm as possible, to the throat. Keep it on day and night, changing it when the strength of the onions appears to be exhausted, and substituting fresh ones. Flannel must be worn round the neck after the poultice is removed.

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417. *Saline Draught.*—Dissolve one scruple of carbonate of potassa, (salt of tartar), in a table-spoonful of lemon-juice, and three table-spoonfuls of water; sweeten with lump sugar, and drink while it effervesces. This is an excellent remedy for sore throats, nausea, &c.

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418. *Another.*—Dissolve one drachm each of nitric acid and carbonate of potassa in three-quarters of a pint of water; add one ounce each of syrup of orange-peel and spirit of nutmeg, and mix. Two table-spoonfuls to be taken in fevers and inflammatory sore throats.

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419. *To make Gargles.*—For relaxed sore throat, mix five ounces of Cayenne pepper gargle, two ounces of infusion of roses, and one ounce of syrup of roses.

Or, mix with the Cayenne pepper gargle, three ounces of vinegar, three drachms of tincture of myrrh, and four drachms of honey of roses.

For inflammatory sore throats, mix six ounces of infusion of roses, one ounce of tincture of myrrh, and one ounce of honey of roses.

Or, mix one drachm and a half of saltpetre, two ounces of honey, and six ounces of rose water.

For scorbutic gums, mix six ounces of infusion of roses, one ounce of borax, and one ounce of honey of roses.

To make the Cayenne pepper gargle, pour six ounces of boil-

ing water upon one scruple of Cayenne pepper; cover it, and let it stand for three hours.

420. *To cure Hiccough.*—This is caused by flatulency, indigestion, and acidity. It may be relieved generally by a sudden fright or surprise, or any sudden application of cold; also by drinking cold water slowly, eating a small piece of ice, taking a pinch of snuff, or anything that excites coughing. Or, take one tea-spoonful of common vinegar.

421. *A simple cure for Dysentery—which has never failed.*—Take some butter off the churn, immediately after being churned, just as it is, without being salted or washed; clarify it over the fire like honey. Skim off all the milky particles when melted over a clear fire. Let the patient (if an adult) take two table-spoonfuls of the clarified remainder, twice or thrice within the day. This has never failed to effect a cure, and in many cases it has been almost instantaneous.

422. *For Diarrhœa.*—Fill a tea-cup with dry flour, press it down, and cover it with a buttered cloth, tying it very closely; boil it three hours, when turn it out to cool into a hard mass. Grate a tea or a dessert-spoonful of it into peppermint water for children, or into a glass of port wine for adults.

423. *Chalk Mixture.*—Mix half an ounce of prepared chalk, the same of lump sugar, and one ounce of powdered gum Arabic, with a pint of water. This is an excellent remedy for diarrhœa.

424. *Fig Paste for Constipation.*—Cut up small one pound of figs, and mix it with two ounces of senna carefully picked over, and one tea-cupful of molasses; stew it till it becomes thoroughly mixed and firm; then cool it. A piece about half as large as a fig will generally be sufficient.

425. *Laxatives.*—Infusions of Epsom salts and senna are often taken as laxatives, or opening medicines. It is a well-known fact, that a tea-spoonful of salts in a tumbler of cold water, if drunk before breakfast, is as effectual a dose as the usual ounce. Senna, too, if steeped in cold water, is equally efficacious, and free from the nauseous bitter taste which it has when infused in boiling water.

426. *To cure Boils.*—Boil in half a pint of milk one tablespoonful of shot; pour it off, and drink it in small doses.

427. *To cure a Felon.*—A felon generally appears on the end of the fingers or thumbs; it is extremely painful for weeks, and sometimes for months, and, in most cases, cripples or disfigures the finger or thumb that falls a victim to it. But it can easily be cured, if attended to in time. As soon as the pain is felt, take the thin white skin of an egg, which is found inside next to the shell; put it round the end of the finger or thumb affected, and keep it there until the pain subsides. As soon as the skin becomes dry, it will be very painful, and likely continue so for half an hour or more; but be not alarmed. If it grows painful, bear it; it will be of short duration in comparison to what the disease would be. A cure will be certain.

BURNS AND SCALDS.

428. We mention several remedies which have obtained popular reputation in these accidents, and which are valuable not only as giving more or less relief, but as being generally at hand, or to be readily procured in every dwelling. They are, wheat flour, which may be thickly sprinkled over the injured parts with a common kitchen dredger, till a perfect crust is formed—an excellent application. Finely-scraped chalk or magnesia, applied in the same way. These act both by excluding the atmospheric air, and absorbing the fluid secreted by the vessels of the inflamed surface. Another application reported to be very efficacious in allaying the pain, is a piece of lint wetted with a saturated solution of carbonate of soda. A poultice of grated raw turnip or potato, applied cold, is quickly productive of ease in slight burns, but requires renewing often enough to keep up the sensation of coldness.

429. *Burns.*—Apply to, or wrap round the burnt part, some folds of cotton bought in sheets; however severe the pain may be, it will abate in a few hours. Should blisters arise, they may next day be carefully pricked with a needle, so as to break the skin as little as possible; and the cotton kept on till the cure is effected.

430. *A remedy for a Burn or Scald.*—Apply immediately a thick covering of wool to the burnt part, and bind it on tight; in the course of half an hour very little pain will be felt, and scarcely any blister will remain. As this remedy is so simple, no housekeeper should be without loose wool at hand, in case of an accident. This remedy was discovered by the child of a woolcomber having been dreadfully scalded: its mother laid it in a basket of newly carded wool, whilst she ran for a doctor; when she returned, she found the child fast asleep amongst the wool, and when it awoke the excessive pain had subsided. We have frequently tried it, and invariably with success.

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431. *For Burns and Scalds.*—Plunge the injured part into cold spring or ice water; or, lay on it pounded ice wrapped in linen.

Or, dissolve four ounces of alum in a quart of hot water; dip a cloth into it, and lay it on the part. As soon as it becomes hot and dry, repeat the application.

Apply to a burn, bruise, or cut, the moist surface of the inside coating of the shell of a raw egg; it will adhere of itself, and heal without pain.

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432. *Efficacy of Vinegar in curing Burns and Scalds.*—Vinegar is a great antiseptic and corrector of putrescence and mortification. The progressive tendency of burns of the unfavorable kind, or those that are ill-treated, is to putrescence and mortification. When the outward skin is not broken, it may be freely used every hour or two; where the skin is broken, and if it gives pain, it must be gently used. But, equal parts of tepid vinegar and water applied every three or four hours, is the best rule to be directed by.

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433. *Vitriol Accidents.*—For a burn by vitriol, or any similar cause, lay on, with a feather, the white of eggs mixed with powdered chalk, and immediate relief will follow.

Or, immediately after the accident, plunge the scalded limb in spirit of turpentine, and keep it there a few minutes.

Or, dissolve in water or fresh soap-boilers' lees, a little soda or potash, and apply it instantly, and it will prevent all injury to the person or clothing.

FEVERS.

434. Feverish symptoms in young children may be reduced, and often entirely cured by sponging in tepid or cold water, according to the age and condition of the patient. Rest, in a clean bed, after sponging, is necessary. Should the fever continue, a gentle emetic may be given. Cold water is the best beverage in fevers, but if very thirsty, give the child a little warm tea.

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435. *Dr. Dickson's cure for a Fever.*—When a man is hot, and his skin dry all over, no matter what the cause be, you may bring his condition to the state of health by throwing cold water over him. You may do the same by an emetic. Oh! an emetic has a wonderful power in fever; and the old physicians treated all fevers in the first instance by emetics. They did not trouble themselves much about the cause. The *state* of the patient was what they cared most about. When he was cold, they warmed him, sometimes with one thing, sometimes with another. When hot, they cooled him; not in the Sangrado fashion of these days, by draining him of his life's blood; but by the employment of an emetic, or by sponging him over with cold water!

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436. *Easy and almost instantaneous cure for the Fever and Ague.*—An hour or two before the fit comes on, take a new-laid egg, in a glass of vinegar or brandy, and go to bed immediately.

This very simple recipe has cured a great many, after more celebrated preparations have proved unsuccessful.

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437. *Cure for Yellow Fever.*—The New Orleans Tropic gives the following recipe, which is said to be used with great success in Mexico, in cases of yellow fever: "A tumbler two-thirds full of olive oil, well mixed with the juice of *two limes*, and a tea-spoonful of fine table salt, is the common remedy in that country; that he has seen it used in hundreds of cases, many of them the most desperate he ever saw, and that he never knew it fail to produce a cure in a solitary instance! It sometimes causes the patient to vomit; in such cases it should be repeated until the stomach will retain it.

438. *Treatment of Scarlet Fever—important prescription.*—Dr. Lindsly, of Washington, strongly recommends the mode of treatment of scarlet fever, resorted to by Dr. Schneemann, physician to the King of Hanover. It is as follows, and exceedingly simple:

Treatment of Scarlet Fever by inunction.—From the first day of the illness, and as soon as we are certain of its nature, the patient must be rubbed morning and evening over the whole body with a piece of bacon, in such a manner that, with the exception of the head, a covering of fat is everywhere applied. In order to make this rubbing-in somewhat easier, it is best to take a piece of bacon the size of the hand, choosing a part still armed with the rind, that we may have a firm grasp. On the soft side of this piece slits are to be made, in order to allow the oozing out of the fat. The rubbing must be thoroughly performed, and not too quickly, in order that the skin may be regularly saturated with the fat. The beneficial results of the application are soon obvious; with a rapidity bordering on magic, all, even the most painful symptoms of the disease are allayed; quiet, sleep, good humor, appetite, return; and there remains only the impatience to quit the sick room.

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439. *Inflammatory Fevers.*—In diseases termed "inflammatory," what measure so ready or so efficacious as to dash a pitcher or two of cold water over the patient—*Cold Affusion*, as it is called? Whilst serving in the army, I cured hundreds of inflammatory fevers in this manner—fevers, that, in the higher ranks of society, under the bleeding and starving systems—would have kept an apothecary and physician—to say nothing of nurses and cuppers—visiting the patient twice or thrice a-day for a month, if he happened to live so long.

Gentlemen, with the cold dash you may easily,

> "While others meanly take whole months to slay,"
> Produce a cure in half a summer's day.—DR. DICKSON.

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440. *Beverage for Fevers.*—Boil two drachms of powdered alum in a pint of milk, and strain. The draught is a wineglassful.

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441. *Mustard Poultices.*—Make a bag of the size required of fine, close muslin; mix equal quantities of mustard and flour, (or a larger proportion of mustard, should the case require it),

with boiling water, until of a proper consistency. Fill the bag with it; sew it up, and, covering it with a handkerchief or piece of clean, soft linen, apply it to the part affected. When it has been on long enough, take it off, and lay on another piece of soft linen.

442. *Bread Poultice.*—Mr. Abernethy directs a bread and water poultice to be made as follows:—Put half a pint of hot water into a pint basin; add to this as much of the crumb of bread as the water will cover, then place a plate over the basin, and let it remain about ten minutes; stir the bread about in the water, or, if necessary, chop it a little with the edge of a knife, and drain off the water, by holding the knife on the top of the basin, but do not press the bread as is usually done; then take it out lightly, spread it about one-third of an inch thick on some soft linen, and lay it upon the part. If it be a wound, you may place a bit of lint dipped in oil beneath the poultice. There is nothing better than the bread poultice for broken surfaces.

443. *Linseed Poultice*—Is made by simply mixing linseed meal into a paste with hot water.

444. *Management of Blisters.*—Spread the plaster thinly on paper or linen, and rub over it a few drops of olive oil. In this way the blister acts speedily, and with less irritation than usual.

445. *Simple Ointment.*—This is made by melting in a pipkin, by the side of the fire, without boiling, one part of yellow or white wax, and two parts of hog's lard or olive oil.

446. *Spermaceti Ointment.*—This consists of a quarter of an ounce of white wax, three quarters of an ounce of spermaceti, and three ounces of olive oil, melted as before. This is the common dressing for a blister.

447. *Elder-flower Ointment.*—This is the mildest, blandest, and most cooling ointment which can be used; and it is very suitable for anointing the face or neck when sun-burnt. It is made of fresh elder-flowers, stripped from the stalks, two pounds of which are simmered in an equal quantity of hog's-lard till

they become crisp; after which, the ointment, whilst fluid, is strained through a coarse sieve.

448. *Calamine Ointment, or Turner's Cerate.*—This consists of half a pound of yellow wax and a pint of olive oil, which are to be melted together; this being done, half a pound of calamine powder is to be sifted in, and stirred till the whole be completely mixed.

449. *Sulphur Ointment.*—This is made by rubbing well together three ounces of flowers of sulphur and half a pound of hog's lard. This ointment, if properly applied, is a certain cure for that nastiest of all nasty, and most easily-caught disease, the itch, which, although generally found among poor people, occasionally steals into the houses of the wealthy. The proper mode of managing it is, for the infected to rub himself well all over with the ointment, night and morning, for three days, during which time he must wear, without change, some old body-linen, stockings, and gloves, and lie in a pair of old sheets or blankets. Washing in the least degree is to be carefully avoided as the plague, for it will protract the cure. On the fourth day let him go into a warm bath, wash himself clean, and he will then be found quite well. Everything which had been worn during the cure should be burnt, sheets and all; but the blankets may be scoured.

PLASTERS, BLISTERS, OINTMENTS, &c.

450. The beneficial influence obtained from all such local applications depends upon the change of temperature they are capable of producing. Their results will vary with constitutions. Most patients, who suffer from chronic disease, point to a particular spot as the locality where they are most incommoded with "cold chills." This is the point for the application of the galbanum or other "warm plaster." A plaster of this kind to the loins has enabled me to cure a host of diseases that had previously resisted every other mode of treatment. The same application to the chest, when the patient complained of chilliness in that particular part, has materially aided me in the treatment of many cases of phthisis. In both instances, where *heat* was the more general complaint, cold sponging has been allowed by an equally beneficial effect.

The ingredients of plasters, blisters, ointments, lotions, &c., what are they but combinations of the agents with which we combat fever? Their beneficial influence depends upon the change of motion and temperature which they produce by their electrical or chemical action on the nerves of the part to which they are directed. Cantharides will not blister the dead—they have very little effect even on a dying man!—*Dr Dickson's Lectures.*

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451. *Liquid Opodeldoc.*—Dissolve one ounce of camphor in a little spirits of wine, and two ounces of soft soap in a little water; put these into a bottle, add half a drachm of oil of rosemary and the same of oil of thyme; shake them well together; add three-quarters of a pint of spirits of wine, and a quarter of a pint of water; set it in a warm place, and shake it occasionally, for a few days. This is an excellent remedy for bruises, sprains, chilblains, &c.

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452. *Extract of Arnica, for Bruises, Sprains, Burns, &c.*—Take one ounce of arnica flowers, dried; that prepared by the Shakers is considered the best; and put them in a wide-mouthed bottle; pour just enough scalding water over them to moisten them, and afterwards about a pint or a pint and a half of spirits of wine. In case of a burn or bruise, &c., wet a cloth in the arnica and lay it on the part affected. Renew the application occasionally, and the pain will soon be removed.

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453. *For a Sprain.*—Mix equal parts of spirit of camphor, distilled vinegar, and turpentine, and rub the part affected.

Cold water applications are excellent for sprains; as, to bathe the part in cold water, to pour cold water upon it, or to put bandages wet in cold water around it.

Extract of arnica, applied to a sprain, will remove the pain in a short time.

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454. *Contusions or Bruises.*—In slight bruises, and those not likely to be followed by much inflammation, nothing more is usually necessary than to bathe the part in cold water, or with spirit, as eau de Cologne, brandy, &c., mixed with an equal proportion of vinegar and water. In more severe cases, however, and where the accident is near an important part, as the

eye, or any of the joints, it becomes a desirable object to prevent the approach of inflammation. This is to be attempted by the application of leeches, repeating them according to circumstances; purgatives and a low diet may become necessary. In the last stage of a bruise, where there is merely a want of tone in the parts, and swellings from the effused blood, &c., friction should be employed, either simply, or with any common liniment, as opodeldoc. Wearing a bandage, pumping cold water on the part, succeeded by warm friction, also a saturated solution of common salt in water, have each been found beneficial. The roots of bryony and Solomon's seal, bruised and applied as a poultice, are efficacious in hastening the disappearance of the lividity of bruises.

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455. *Lime Water.*—Pour three quarts of water upon eight pounds of unslaked lime; let stand half an hour, when add three gallons of water, and pour it off.

It is useful in cases of derangement of the digestive organs.

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456. *Walnut Water.*—This is recommended as a remedy in subduing nausea and vomiting, if administered in doses of a wine-glassful every half-hour. It is distilled from green walnuts, angelica-seeds, and brandy.

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457. *Uses of Borax.*—Powdered borax, mixed with honey, or conserve of roses, is an excellent remedy for inside sores of the mouths of children.

If a little of the mixture be dissolved in warm water, it will form, when cold, an efficacious gargle for an ulcerated sore throat.

If a weak solution of borax in rose-water be constantly applied, by means of a fine linen cloth, over the redness which often affects the noses of delicate persons, it will relieve the sense of heat, and remove the redness. Many other spots on the face may be similarly removed.

It is likewise a very useful application to chilblains.

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458. *The virtues of Sage.*—This valuable herb was held in such high esteem among the ancients, that they have left us a Latin verse, which signifies—

"*Why should a man die whilst he has sage in his garden?*"

It is reckoned admirable as a cordial, and to sweeten and cleanse the blood. It is good in nervous cases, and is given in fevers, with a view to promote perspiration. With the addition of a little lemon-juice, it is very grateful and cooling.

459. *Sage Tea.*—Wood sage, which grows naturally, is the finest kind; with a little alum it makes an excellent gargle for a sore throat. It may be made as tea, but is better if boiled.

460. *Senna Tea.*—Macerate for an hour, in a covered vessel, one ounce and a half of senna, a drachm of ginger, sliced, and a pint of boiling water; the dose is from one-half to a wine-glassful. Or, mix two drachms of senna, with a little Bohea tea, in a quarter of a pint of boiling water, and add, when poured off clear, a little sugar and milk.

461. *Chamomile Tea.*—Take of chamomile flowers one ounce, boiling water, one quart; simmer for ten minutes, and strain.

Chamomile tea is well known as an emetic, when taken in a tepid state. In some parts of England, a strong infusion of chamomile is frequently taken at bed-time, as hot as it can be swallowed, when it produces perspiration, and next morning acts as a purgative. It is also there considered as one of the best remedies for indigestion, colic, pains and obstructions of the bowels, especially when arising from cold. A cup of coffee taken hot on an empty stomach, will frequently be as efficacious as the chamomile, in either of the above cases.

A small cupful of the tea, cold, taken in the morning, fasting, is often serviceable for indigestion. Chamomiles are also employed in fomentations, their greatest use being to retain the heat of the application.

462. *Linseed Tea.*—Pour two quarts of boiling water upon one ounce of linseed, and two drachms of liquorice-root, sliced; let it stand six hours.

463. *Mint Tea.*—Mint, to be used as tea, should be cut when just beginning to flower, and should be dried in the shade. The young leaves are eaten in salads, and some eat them as the leaves of sage, with bread and butter.

464. *Nitre* is a cheap and valuable medicine, both cooling and purifying to the blood. In the feverishness that attends

a cold, from seven to ten grains of purified nitre, in a glass of water, may be taken two or three times a day, with safety and advantage. For old wounds, such as are commonly called "a bad leg," great benefit will be derived from taking a solution of nitre, prepared thus:—In one pint of boiling water, dissolve two ounces of saltpetre; of which take a table-spoonful twice a day. If it should occasion pain, a little hot ginger-tea will soon give relief.

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465. *To make Verjuice.*—The acid of the juice of the crab or wilding is called by the country people, verjuice, and is much used in recent sprains, and in other cases, as an astringent or repellant.

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466. *Medicines in Travelling.*—In case of change of food disagreeing with the stomach, dissolve a tea-spoonful of Epsom salts in half a pint of water, as warm as it can be drunk, and repeat the dose every half-hour, until it operates.

For diarrhœa, or acidity of stomach, mix one drachm of compound powder of kino, with half an ounce of compound powder of chalk; divide into six powders, and take one or two a day, in three table-spoonfuls of water, and a tea-spoonful of brandy.

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467. *To prevent Sea-sickness.*—Pass a broad belt round the body, and place within it, on the region of the stomach, a pad stuffed with wool or horse-hair; this, when tightly braced, restrains the involuntary motion of the stomach, occasioned by the lurching of the vessel. During sickness, very weak cold brandy and water will be found the best means of allaying the heat and irritation.

The frequent use of any sea-sickness preventive is, however, attended with danger.

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468. *Valuable properties of Cherry-tree Gum.*—The gum that exudes from the trunk and branches of the cherry-tree is equal to gum-arabic. Hasselquist relates that, during a siege, more than an hundred men were kept alive for two months nearly, without any other sustenance than a little of this gum taken into the mouth sometimes, and suffered gradually to dissolve.

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469. *How to get Sleep.*—How to get sleep is to many persons a matter of high importance. Nervous persons who are trou

pled with wakefulness and excitability, usually have a strong tendency of blood on the brain, with cold extremities. The pressure of the blood on the brain keeps it in a stimulated or wakeful state, and the pulsations in the head are often painful. Let such rise and chafe the body and extremities with a brush or towel, or rub smartly with the hands to promote circulation and withdraw the excessive amount of blood from the brain, and you will sleep in a few moments. A cold bath, or a sponge bath and rubbing, or a good run, or a rapid walk in the open air, or going up or down stairs a few times, just before retiring, will aid in equalizing circulation, and promoting sleep These rules are simple and easy of application in castle or cabin, and minister to the comfort of thousands who would freely expend money for an anodyne to promote "Nature's sweet restorer, balmy sleep."

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470. *Remedy for Bad Breath.*—Take from five to ten drops of muriatic acid, in an ale-glassful of barley-water, and add a little lemon-juice and lemon-peel to flavor; mix for a draught to be taken three times a day, for a month or six weeks at least, and, if effectual, it may be continued occasionally. Another medicine of this kind, which has often proved beneficial when the stomach has been wrong, and the bowels costive, is the following: Take one drachm of sulphate of magnesia, two drachms of tincture of calumba, one ounce and a half of infusion of roses; make a draught, to be taken every morning, or every other morning, an hour before breakfast, for at least a month.

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471. *Corpulence.*—Those who are afflicted with corpulence should not allow themselves above six hours' sleep in the twenty-four. They should take as much exercise as possible, and avoid cream, malt liquors and soups—at least until they have succeeded in reducing their bulk. Salt provisions are good, having a tendency to promote perspiration, and carry off fat. Soda water is also beneficial. *Recipe:* Take Castile soap, in the form of pills, or electuary, of from one to four drachms dissolved in a quarter of a pint of soft water, when going to bed. But let not our lovely girls abuse their constitutions by drinking vinegar for this purpose, for consumption has often been produced by that habit.

472. *Leanness.*—This is not a disease; on the contrary, lean people are generally healthy, muscular, strong, and active, and remarkable for a keen appetite. But when there appears a diminution of strength—when the spirits sink, and the food does not freely digest—then leanness is the sign of lurking disease. Such patients should take a cup of milk warm from the cow every morning, or cold milk, with two raw fresh eggs beaten up with it. A pint of the best porter or stout at dinner, and the same at supper. Tea is better than coffee, and salad with strong supplies of oil, not much vinegar, are recommended.

473. *Cure for Stammering.*—Impediments in the speech may be cured, where there is no malformation of the organs of articulation, by perseverance for three or four months in the simple remedy of reading aloud, with the teeth closed, for at least two hours in the course of each day.

POISONS AND ANTIDOTES.

474. *Acids.*—These cause great heat, and sensation of burning pain, from the mouth down to the stomach. Remedies, magnesia, soda, pearlash, or soap, dissolved in water; then use stomach-pump or emetics.

475. *Alcohol.*—First cleanse out the stomach by an emetic, then dash cold water on the head, and give ammonia (spirits of hartshorn.)

476. *Alkalies.*—Best remedy is vinegar.

477. *Ammonia.*—Remedy, lemon-juice or vinegar, afterwards milk and water or flaxseed tea.

478.—*Arsenic.*—Remedies, in the first place evacuate the stomach, then give the white of eggs, lime-water, or chalk and water, charcoal and the preparations of iron, particularly hydrate.

479. *Belladonna, or Night Henbane.*—Give emetics, and then plenty of vinegar and water or lemonade.

480. *Charcoal.*—In poisons by carbonic gas, remove the patient to open air, dash cold water on the head and body, and stimulate nostrils and lungs by hartshorn, at the same time rubbing the chest briskly.

481. *Corrosive Sublimate.*—Give white of eggs freshly mixed with water, or give wheat flour and water, or soap and water freely.

482. *Creosote.*—White of eggs and the emetics.

483. *Laudanum.*—Same as opium.

484. *Lead. White Lead and Sugar of Lead.*—Remedies, alum, cathartic, such as castor oil and Epsom salts, especially.

485. *Mushrooms, when poisonous.*—Give emetics, and then plenty of vinegar and water, with dose of ether, if handy.

486. *Nitrate of Silver, (lunar caustic).*—Give a strong solution of common salt, and then emetics.

487. *Nitrate of Potash, or Saltpetre.*—Give emetics, then copious draughts of flaxseed tea, milk and water, and other soothing drinks.

488. *Opium.*—First give a strong emetic of mustard and water, then strong coffee and acid drinks, dash cold water on the head.

489. *Oxalic Acid.*—Frequently mistaken for Epsom Salts. Remedies, chalk, magnesia, or soap and water freely, then emetics.

490. *Prussic Acid.*—When there is time, administer chlorine, in the shape of soda or lime. Hot brandy and water Hartshorn and turpentine also useful.

491. *Snake Bites, &c.*—Apply immediately strong hartshorn, and take it internally; also, give sweet oil, and stimulants freely. Apply a ligature tight above the part bitten, and then apply a cupping-glass.

492. *Tartar Emetic.*—Give large doses of tea made of galls, Peruvian bark, or white oak bark.

493. *Tobacco.*—First an emetic, then astringent tea, then stimulants.

494. *Verdigris.*—Plenty of white of egg and water.

495. *White Vitriol.*—Give the patient plenty of milk and water.

In almost all cases of poisoning, emetics are highly useful, and of those, one of the very best, because most prompt and ready, is the common mustard flour or powder, a spoonful of which, stirred up in warm water, may be given every five or ten minutes, until free vomiting can be obtained.

Emetics and warm demulcent drinks, such as milk and water, flaxseed or slippery elm tea, chalk water, &c., should be administered without delay. The subsequent management of the case will of course be left to a physician.

496. *To prevent Death from the Bite of Venemous Animals.*—From observations made by Dr. Bancroft, it is found, that in South America, where the most venomous serpents abound, a very tight ligature, instantly made after the bite, between the part bitten and the trunk of the body, will prevent immediate danger, and allow time for proper means of remedy, either by excision of the whole joint, just above the ligature, or by topical applications upon the part bitten.

For instance, if the bite should be upon the end of the finger, a tight ligature of small cord should immediately be made beyond the next joint of the finger.

If the bite is on any part of the hand, the ligature should be made above the wrist, by means of a garter or cord, lapped several times round the arm, and rendered as tight as possible, by a small stick thrust betwixt the folds of the cord or garter, and twisted round very hard, to prevent the circulation of the blood betwixt the part bitten and the other part of the body. Ligatures of the same kind, applied by any one present, or the man himself, will frequently save a person's life, where, by accident, an artery in any of the limbs is wounded, and no surgeon is at hand.

497. *Prevention of Hydrophobia.*—As there has been hitherto no remedy discovered which can be said to possess a specific control over this dreadful malady, and therefore little hope can be entertained of a cure for it, our best endeavors should be directed to the *preventive* treatment. This is to be commenced, then, by completely cutting out the whole wound as soon as possible after the bite of a suspected animal. After this, bleeding should be encouraged by immersion in warm water, or the application of a cupping-glass. Caustic should next be applied to every part of the wound, which is then to be covered with a poultice, and suffered to heal by granulation, or be kept open, and made to suppurate, by irritating ointments. The excision should never be omitted, even though the bitten part have healed, and let the interval since its occurrence be what it may. As for any of innumerable so-called specifics, there is not one that is worth a moment's trial.

498. *To alleviate the Pain occasioned by the Sting of Gnats.*—The disagreeable itching occasioned by the sting of these insects, may be removed by volatile alkali, or immediately rubbing and washing the part affected with cold water.

At night, to rub with fuller's earth and water, lessens the inflammation.

499. *Simple and effectual cure for those who may accidentally have swallowed a Wasp.*—Instantly, on the alarming accident taking place, put a tea-spoonful of common salt in your mouth, which will instantaneously not only kill the wasp, but at the same time heal the sting.

500. *For the Sting of a Wasp or Bee.*—Spread over the part a plaster of salad oil and common salt; if oil be not at hand, the salt may be used, moistened with water or vinegar. Or, keep the part constantly moist with a rag dipped in sal-volatile and cold water, as strong as can be borne without raising the skin. Or, immediately after taking out the sting, get an onion and bruise it, and apply it to the stung place, and it will afford immediate relief. Or, a washerwoman's blue-bag, applied in the same manner, will have a like effect.

501. *Sting of a Nettle.*—Rub the part affected with balm, rosemary, mint, or any other aromatic herb, and the smart will soon cease

BATHS AND BATHING.

502. The best materials for constructing baths, are slabs of polished marble, bedded with water-tight cement, in a wooden case, and carefully united at the edges. But, as white or veined marble baths are apt to get yellow or discolored by frequent use, and cannot easily be cleaned, large Dutch tiles, or square pieces of white earthenware, are sometimes substituted; these, however, are with difficulty kept water-tight, so that marble is altogether preferable. Copper, or tinned iron plates, are also used; the former is more expensive at the outset, but far more durable than the latter, which is also liable to leakage at the joints, unless excellently made. Both copper and iron should be well covered, in and outside, with several coats of paint. Wooden tubs—square, oblong, or oval—are sometimes used for warm baths, and are cheap and convenient; but the wood contracts a mouldy smell, and there is great difficulty in preventing shrinkage in them, and keeping them water-tight.

The fittest place for baths, is the bed-room floor; they are sometimes placed in the basement story, which is cold and damp, and in all weather disagreeable.

Due attention should be paid to the warming and ventilation of the bath-room. A temperature of 70 degrees, by the thermometer, should be kept up in it; and ventilation is requisite, to prevent the moisture settling upon the walls and furniture.

An improvement in the construction of baths, is a slightly hollowed space at one end, to receive the head of the bather, so as to prevent that sensation of cramp which is often experienced from the ordinary, abrupt shape of a bath.

The hand is a very uncertain test for the heat of water, and should, therefore, not be relied on in preparing a bath; but a thermometer should be employed, which will denote the actual temperature, thus:—

Cold bath,	from	32°	to	75°	of	Fahrenheit.
Tepid	"	"	75	to	92	"	"
Warm	"	"	92	to	98	"	"
Hot	"	"	98	to	114	"	"
Vapor	"	"	100	to	140	"	"

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503. *Hand Shower-Bath.*—An excellent hand shower-bath for children, has been invented. It consists of a metal vessel,

containing about a gallon, the bottom of which is pierced with holes, while the upper part is open, and provided with a handle. When intended to be used, the vessel is immersed in a pail of water, and it quickly fills from the lower part. The thumb is placed over the aperture at the apex, which prevents all escape of water. It may be held at a convenient distance over the child, and the moment the thumb is removed, there falls a refreshing shower, which may be stopped instantaneously, by placing the thumb over the upper opening.

504. *Simple Vapor Bath.*—Wrap the patient in blankets, which fasten closely about the neck, leaving the head exposed: then place him in a chair, under which set a basin or deep dish, with half a pint of spirits of wine, or whisky, which should be ignited: close the blankets to the floor, and in a few minutes the patient will be in a profuse perspiration, and should be put to bed between warm blankets.

505. *Advantages of Bathing.*—It is a fact officially recorded, that during the terrible visitations of cholera in France, out of nearly 16,228 subscribers to the public baths of Paris, Bordeaux, and Marseilles, only two deaths among them were ascribed to cholera. We doubt whether there exists a more effectual preventive of disease of every kind, and a greater promoter of good health at all times, than the practice of daily bathing.

506. *Uses of Hot Water.*—The efficacy of hot water, on many occasions in life, cannot be too generally known. It is an excellent gargle for a bad sore throat, or quinsy. In bruises, hot water, by immersion and fomentation, will remove pain, and prevent discoloration and stiffness. It has the same effect after a blow. It should be applied as quickly as possible, and as hot as it can be borne. Insertion in hot water will also cure that troublesome and very painful ailment, the whitlow.

507. *Good effects of Bathing.*—"I am often asked, what baths are safest—as if everything, by its fitness or unfitness, is not safe, or the reverse. The value of all baths depends upon their fitness; and that, in many instances, can only be known by trial. It depends upon constitution, more than upon the name of a disease, whether particular patients shall be benefited by

one bath or another. Generally speaking, when the skin is hot and dry, a cold bath will do good; and when chilly, a hot bath. But the reverse sometimes happens. The cold stage of ague, may at once be cut short by a cold bath. I have seen a shivering hypochondriac dash into the cold plunge bath, and come out, in a minute or two, perfectly cured of all his aches and whimseys. But, in cases of this nature, everything depends upon the *glow* or *reaction* which the bath produces; and that has as much to do with surprise or shock as with the temperature of the bath. I have seen a person with a hot, dry skin, go into a warm bath, and come out just as refreshed as if he had taken a cold one. In that case, the perspiration which it excited, must have been the principal means of relief.

"So far as my own experience goes, I prefer the cold and tepid shower-baths, and the cold plunge-bath, to any other; but there are cases in which these disagree, and I, therefore, occasionally order the warm or vapor-bath instead."—*Dr. Dickson.*

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508. *Diet for Patients.*—"I am every day asked by my patients, what diet they should take. I generally answer by the question, 'How old are you?' Suppose they say, *Forty*—'Forty!' I rejoin: 'you who have had forty years' experience of what agrees and disagrees with you—how can you ask me who have no experience of the kind in your case whatever?' Surely, gentlemen, a patient's experience of what agrees and disagrees with his own particular constitution, is far better than any theory of yours or mine. Why, bless my life! in many chronic diseases, the diet which a man can take to-day, would be rejected with disgust to-morrow; under such circumstances, would you still, according to common medical practice, tell a sick person to go on taking what he himself found worried him to death? Gentlemen, I hope better things of you.

"The only general caution you need give your patients on the subject of diet, is *moderation;* moderation in using the things which they find agree with themselves best. You may direct them to take their food in small quantities at a time, at short *periodic* intervals—intervals of two or three hours, for example; and tell them to take the trouble to masticate it properly before they swallow it, so as not to give a weak stomach the *double* work of mastication and digestion—these processes being, even in health, essentially distinct. Unless properly comminuted and mixed with the saliva, how can you

expect the food to be anything but a source of inconvenience to persons whom the smallest trifle will frequently discompose?"—*Dr. Dickson's Lectures.*

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509. *Abstinence, or Starvation.*—Beware of carrying this too far!—for "abstinence engenders maladies." So Shakspeare said, and so nature will tell you, in the teeth of all the doctors in Europe! Abstinence may produce almost every form of disease which has entered into the consideration of the physician.—*Ibid.*

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510. *The Blood is the Life—never be Bled!*—"He who loses a pint of blood, loses a pint of his life. Of what is the body composed? Is it not of blood, and blood only? What fills up the excavation of an ulcer or an abscess? What re-produces the bone of the leg or thigh, after it has been thrown off dead, in nearly all its length? what but the living BLOOD, under the vito-electrical influence of the brain and nerves! How does the slaughtered animal die? Of loss of blood solely. Is not the blood, then, in the impressive language of Scripture, 'the life of the flesh?' How remarkable, that while the value of the blood to the animal economy should be thus so distinctly and emphatically acknowledged, blood-letting is not even once alluded to, among the various modes of *cure* mentioned in the sacred volume. We have 'balms,' 'balsams,' 'baths,' 'charms,' 'physics,'—'poultices,' even—but loss of blood, never! Had it been practised by the Jews, why this omission? Will the men who now so lavishly pour out the blood, dispute its importance in the animal economy? Will they deny that it forms the basis of the solids? that when the body has been wasted by long disease, it is by the blood only it can recover its healthy volume and appearance?"—*Dr. Dickson's Lectures.*

THE TOILET.

511. Personal beauty is the gift of nature, but its preservation depends much on the care of its possessor. Beauty may also be cultivated and enhanced; even plainness may be improved, and the defects that sickness, accidents, and age impress on the human features and form, may be greatly remedied by simple means, and attention to a few important rules.

The first requisite for the preservation and improvement of personal beauty is *good temper*. The teachings of the New Testament, if you follow its precepts, will insure you this grace. The second requirement is *good health*. The most important rules for its preservation and recovery are given in this chapter. The third requisite comprises attention to neatness, and that general care of the person which the rules and receipts we here subjoin, will aid in making complete.

512. *Of the Hair.*—It is a great mistake to plait the hair of children under eleven or twelve years of age. The process of plaiting more or less strains the hairs in their roots by pulling them tight; tends to deprive them of their requisite supply of nutriment; and checks their growth. The hair of girls should be cut rather short, and allowed to curl freely. When they are about eleven or twelve, the hair should be twisted into a coil, not too tight, nor tied at the end with thin thread, but with a piece of riband.

513. *Do not Shave the Head.*—Shaving the head is always injurious to the hair, the bulbs being frequently destroyed by the process; and washing frequently with an alkaline preparation, such as soap and water, is decidedly objectionable, for that, as well as sea-water, is very apt to change the color of the hair.

514. *To purify and beautify the Hair.*—An excellent means of keeping the hair sweet, clean, glossy, and curly, is to brush it with a rather hard brush dipped by the surface only in eau de Portugal ("Portugal water"). In order to have it fresh and of fine quality, take a pint of orange flower water, a pint of rose water, and half a pint of myrtle water. To these put a quarter of an ounce of distilled spirit of musk, and an ounce of spirit of ambergris. Shake the whole well together, and the water will be ready for use. Only a small quantity should be made at a time, as it does not keep long, except in moderate weather, being apt to spoil either with cold or heat.

515. *To promote the Growth of Hair.*—Mix equal parts of olive oil and spirits of rosemary, and add a few drops of oil of nutmeg. If the hair be rubbed every night with a little of this liniment, and the proportion be very gradually augmented, it

will answer every purpose of increasing the growth of hair, much more effectually than can be attained by any of the boasting empirical preparations which are imposed on the credulous purchaser.

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516. *Curling Liquid for the Hair.*—When the hair will not curl naturally, the curling irons should not be used; they only extract the moisture, and render the hair crisp and harsh. An excellent curling liquid is the following:—Put two pounds of common soap, cut small, into three pints of spirits of wine, with eight ounces of potash, and melt the whole, stirring it with a clean piece of wood. Add some essence of amber, vanilla, and nevoli, about a quarter of an ounce of each, to render the fluid agreeable. The liquids which are sold for the professed purpose of assisting in curling the hair, are chiefly composed of either oily or extractive substances.

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517. *To prevent Hair from falling out.*—Make a strong decoction of white-oak bark in water, and use it freely. It is best to make but little at a time, and have it fresh at least once a fortnight.

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518. *To avoid Grey Hairs.*—Those who would avoid that prominent mark of approaching old age, called grey hair, must be careful in the treatment of the hair in their youth. They must avoid constricting the skin, and strangling the hair at its roots, and everything that may throw into the blood an undue portion of lime. We say an *undue* portion, because a certain quantity of lime is indispensable in our system for repairing the wear and tear of the bones, teeth, &c. The lime necessary for the repair of bone is manufactured by the stomach and liver, along with the blood, from various articles of our diet which contain it. The greatest supply is usually from the water which we drink, or which is employed in the various processes of cooking and preparing liquors. All animal food also contains some portion of lime, as well as some of the sorts of vegetable food. Ascertain, then, by chemical trial, whether the water used for your tea, coffee, soups, &c., contains a large proportion of lime; and, if it do, you must either have it chemically purified, or remove to some other place where the water is more free from lime. If water be hard, you may be certain that it contains too much lime to be safely used. Rain-water

is the safest for tea and other liquids. Bread will always contain a portion of lime; you must, therefore, be careful in dealing with respectable bakers, who will not increase that unavoidable quantity by means of adulterating matter (such as whiting) which contains lime.

519. *To soften and cleanse the Hair.*—Beat up an egg, rub it well into the hair, and then wash the head well. If the hair is very oily, add the juice of half a lemon. This receipt also answers much better for washing pet dogs than soap.

520. *To make a Curling Fluid for the Hair.*—Melt a piece of white bees'-wax, about the size of a filbert kernel or large pea, in one ounce of olive oil; to this add one or two drops of ottar of roses or any other perfume.

521. *Gen. Twiggs' Hair Dye.*—Dissolve in a pint of rose-water, one ounce of lac sulphur, and half an ounce of sugar of lead. Wet the hair with this mixture thoroughly every night, shaking the bottle occasionally. Some persons prefer whisky to rose-water, in mixing the articles.

522. *To change Hair to a deep Brown.*—A solution of silver caustic in water is the foundation of all the nostrums for this purpose. It must be well diluted before used.

523. *To dye the Hair Black.*—Procure from the dyer's a quantity of walnut-water; and with this wash the hair, as the first part of the process. Then make an aromatic tincture of galls, by scenting the common tincture with any agreeable perfume; and with this wet the hair, which must next be moistened with a strong solution of sulphate of iron.

524. *A simple Hair-dye.*—Boil in a pint of water a handful of rosemary; when cold, strain and bottle, but do not cork it. Renew it every few weeks. Wet the hair with it every night.

525. *To darken theEye-brows.*—Take an ounce of walnuts, an ounce of frankincense, an ounce of resin, and an ounce of mastick. Burn them all on clear, red-hot charcoal, and receive the fumes into a funnel, in which a very fine black powder, slightly perfumed and unctuous, will adhere. Mix this with a little oil

of myrtle, in a leaden mortar, and apply it to the eye-brows. This paste has the property of resisting both heat and perspiration; but it must be occasionally renewed. The following method may also be used: Burn a clove in the flame of a wax-candle, dip it into the juice of elder-berries, and apply it to the eye-brows. The powder, also, which is used in the East for painting the eye-lashes, and which is composed of antimony and bismuth, may be safely and advantageously used. Or, a paste prepared from powdered black lead, with eau de Cologne, or oil of myrtle, or essence of bergamot, will suffice for the purpose. When the eye-brows become long and shaggy, they give a ferocious and repulsive expression to the countenance. The scissors should in that case be often used. Some of the longest hairs might also be removed with the tweezers.

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526. *To know whether Hair Powder is adulterated with Lime.*—Put a little crude sal-ammoniac, in powder, to the suspected hair powder, and add a little warm water to the mixture, and stir it about; if the powder has been adulterated with lime, a strong smell of volatile alkali will arise from this mixture.

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527. *To perfume Hair Powder.*—Take one drachm of musk, four ounces of lavender blossoms, one and a half drachm of civet, and half a drachm of ambergris; pound the whole together, and pass it through a sieve. Preserve this mixture in well-stopped bottles, and add more or less thereof, as agreeable, in your hair powder.

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528. *To improve the Hair.*—Powdered hartshorn, mixed with oil, being rubbed upon the head of persons who have lost their hair, will cause it to grow again. A very good oil for the hair is made by mixing one part of the liquid hartshorn with nine parts of pure castor-oil.

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529. *An economical Hair Wash.*—Dissolve in one quart of boiling water one ounce of borax and half an ounce of camphor; these ingredients fine. When cool, the solution will be ready for use. Damp the hair with it frequently. This wash not only cleanses and beautifies, but strengthens the hair, preserves the color, and prevents baldness.

530. *To remove Superfluous Hair.*—This is very difficult, for if you pull the hair out by the roots from those places which it disfigures, there are thousands of roots ready to start through the skin the moment you make room for them. Old authors recommend depilatories in great variety. The principal of these methods consist in rubbing upon the part from which the hair is to be removed, leaven, parsley water, juice of acacia, the gum of ivy or of the cherry-tree, dissolved in spirits of wine, &c. Madame Elisi Voiart, in her "Encyclopédie des Dames," recommends a few drops of dulcified spirit of salt, (that is, muriatic acid distilled with rectified spirits of wine,) to be applied with a camel hair pencil.

OF THE COMPLEXION.

531. *Never Paint.*—The use of white paint as a cosmetic affects the eyes, which it renders painful and watery. It changes the texture of the skin, on which it produces pimples; attacks the teeth, destroys the enamel, and loosens them. It heats the mouth and throat, infecting and corrupting the saliva. Lastly, it penetrates the pores of the skin, acting by degrees on the spongy substance of the lungs, and inducing disease. Powdered magnesia, or violet powder, is no further injurious than by stopping the pores of the skin; but this is quite injury enough to preclude its use. The best cosmetics are early hours, exercise, and temperance.

532. *To soften the Skin and improve the Complexion.*—Mix in a cup of milk a little flowers of sulphur; let it stand for an hour or two; then, without disturbing the sulphur, rub the milk into the skin. It will keep it soft and clear. It should be used before washing.

533. *How to treat Freckles.*—Most of us have observed the effect produced on white paper by holding it closely to the fire: it changes rapidly from white to brown, and becomes scorched. Chemists tell us that most combustible things, both in the animal and vegetable world, have carbon for their basis—*so has the skin;* and, if it be exposed to the heat, it becomes, like them, spotted or charred. The iron and oxygen in the blood also assist to produce this effect. Thus we have the cause of freckles. Those who, like Richard Cœur de Lion, and Mary

Queen of Scots, have red hair (which is caused by a red-colored oil, more strongly impregnated with iron than others), are most liable to freckles.

The most effectual means of removing freckles, is the use of those chemicals which will dissolve the existing combination. The freckles are situated in the second or middle membrane of the skin; and, before any other application, it will be advisable to soften the surface by the use of some mild balsam or paste.

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534. *For Freckles.*—One ounce of bitter almonds, one ditto of barley flour, mix with a sufficient quantity of honey to make the whole into a smooth paste; with which the face, more particularly where the freckles are visible, is to be anointed at night, and the paste washed off in the morning. After a few days the skin will be prepared for a chemical remedy.

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535. *Another.*—To decompose the freckles, by laying hold of the iron, the following mixture may be applied: Take one drachm of muriatic acid, half a pint of rain-water, half a teaspoonful of spirit of lavender; mix well together, and apply two or three times a day to the freckles, with a camel's hair brush. The acid seizes upon the iron, and the oxygen is disengaged.

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536. *Purifying water for Freckled Skin.*—Take one teaspoonful of liquor of potassa, two ounces and a half of pure water, and ten drops of eau de Cologne. Mix, and apply three times a day with a camel's hair brush.

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537. *Cosmetic Lotion for Freckles.*—Take a tea-cupful of cold sour milk, scrape into it a quantity of horse-radish. Let this stand from six to twelve hours; and then, being well strained, let it be applied, as before directed, two or three times a day.

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538. *Preventive Wash for Sunburn.*—Take two drachms of borax, one drachm of Roman alum, one drachm of camphor, half an ounce of sugar-candy, and one pound of ox-gall; mix and stir well together, and repeat the stirring three or four times a day, until the mixture becomes transparent; then strain it through filtering paper, and it is fit for use.

539. *Grape Lotion for Sunburn.*—Dip a bunch of green grapes in a basin of water; sprinkle it with powdered alum and salt, mixed together; wrap it in paper, and bake it under hot ashes; then express the remaining juice, and wash the face with the liquid.

540. *Lemon Cream for Sunburn and Freckles.*—Put two spoonfuls of fresh cream into half a pint of new milk; squeeze into it the juice of a lemon, and half a glass of brandy, a little alum, and loaf sugar; boil the whole, skim it well, and, when cool, it will be fit for use.

541. *A French Receipt.*—Take equal parts of the seeds of the melon, pompion, gourd, and cucumber, pounded and reduced to powder or meal; add to it fresh cream sufficient to dilute the flour; beat all up together, adding a sufficient quantity of milk, as it may be required, to make an ointment, and then apply it to the face. Leave it there for half an hour, and then wash it off with warm soft water. Pimpernel water is often used on the continent for the purpose of whitening the complexion. It is there in so high reputation, that it is said generally that it ought to be continually on the toilet of every lady who cares for the brightness of her skin.

542. *Moles.*—The author of "The Art of Beauty," whose work appeared in 1824, has very judiciously observed: "The common brown mole appears to be much of the same nature as freckles, and to be situated in the middle layer of the skin, or membrane of color. Moles are sometimes so placed as to improve rather than injure a fine face. They contrast with the delicacy of a fair skin, and give a pleasing archness of expression to the countenance. They are, however, most frequently found on women of a dark complexion. The coloring matter, as in the case of freckles and sunburn, is probably some chemical combination of iron. Moles have evidently a superabundant vitality, and a tendency to increased action, in consequence, perhaps, of the stimulus of the iron; and hence they are often slightly elevated above the surface, and the natural down of the skin is changed into a tuft of hair. The same cosmetic applications may be tried as for freckles, with gentle friction, but they are seldom successful. But it will be found very

dangerous to apply depilatories to eradicate the tufts of hair on moles, as cancer in the face is not unfrequently the consequence of such applications."

543. *Birth Marks.*—Let them alone, or apply to some eminent surgeon to attempt their removal.

544. *Worm Pimple, with black points.*—They are very common, and very unsightly, giving the skin an oily, greasy, and dirty appearance. Their origin is to be traced to the obstruction of the fountains or glands placed immediately under the skin, from which a minute pipe carries off the perspiration. This moisture, not getting free egress, thickens and closes the pores: it then catches the dust and other impurities, floating in the atmosphere, and soon becomes black. If squeezed violently between the nails, this thickened matter will be driven out, in the form of a yellowish white worm, with a black head, which is nothing more than the extraneous matter just mentioned. That there is any vitality in it, is an absurd, but popular and prevalent error. These pimples generally cluster on the sides of the nose and on the forehead, whilst the skin around them is greasy. They should be thoroughly pressed out of every pore, or there they will remain, and no cosmetic will dislodge them. When this is effectually done, the following safe and simple application may be tried: take one ounce of bitter almonds and one ounce of barley-flour; mix them with honey, until they form a smooth paste, and anoint the skin at night. Gentle friction, either with the hand or with a soft glove, is also good. When this state of the skin is induced by bilious disorders, indigestion, &c., sulphur, purgatives, and other remedies must be taken to remove it; but not without medical advice, as they often are the reverse of effectual.

545. *Another simple Remedy.*—Bathe the pimples several times a day with lukewarm water and a sponge, rubbing the sponge over a piece of yellow soap. There is a truly healing power in soap, which is surprising when we learn to appreciate it, and which is quite distinct from mere cleanliness.

546. *Wash for Pimples.*—Dissolve half a drachm of salt of tartar in three ounces of spirit of wine; apply with linen or a camel-hair pencil.

547. *A Paste for the Skin.*—Boil the whites of four eggs in rose-water; add to it a small quantity of alum; beat the whole to the consistence of a paste. This will give great firmness to the skin.

548. *Cold Cream.*—Take two ounces of oil of sweet almonds, and one drachm each of white wax and spermaceti, or half an ounce of white wax alone, which scrape very fine, and put them with the oil into an earthen dish, to melt slowly on the embers, and stir it till it becomes quite smooth. When it is cooling, add one ounce of rose-water, and put it into a gallipot, closely covered. It should be a very thick cream.

549. *Fard.*—This paste is useful in removing sun-burnings, effects of wind on the face, and accidental cutaneous eruptions. It must be applied on going to bed. First, wash the face, and, when dry, rub the fard over it, and let it remain all night. Take two ounces of oil of sweet almonds, and the same quantity of spermaceti; melt them over a slow fire. When they are dissolved and mixed, take it from the fire, and stir into it one table-spoonful of fine honey. Continue stirring it till it is cold, and it is then fit for use.

550. *Court-plaster, or black Sticking-plaster.*—Take half an ounce of benzoin, and six ounces of rectified spirit; dissolve and strain; then take one ounce of isinglass, and half a pint of hot water; dissolve and strain separately from the former. Mix the two, and set them aside to cool, when a jelly will be formed; and this is warmed and brushed ten or twelve times over a piece of black silk, stretched smooth. When this is done enough, and dry, finish it with a solution of four ounces of chian turpentine in six ounces of tincture of benzoin.

551. *An excellent Tooth-powder.*—One of the best tooth-powders is made by mixing together one ounce and a half of prepared chalk, half an ounce of powder of bark, and a quarter of an ounce of camphor.

552. *Charcoal Tooth-powder.*—Pound charcoal as fine as possible, in a mortar, or grind it in a mill; then well sift it, and apply a little of it to the teeth about twice a week, and it will not only render them beautifully white, but will also make the breath sweet, and the gums firm and comfortable.

If the charcoal is ground in a mortar, it is convenient to grind it in water, to prevent the dust from flying about. Indeed, the powder is more convenient for use, when kept in water.

553. *A safe Tooth-powder.*—Cut a slice of thick bread into squares, and burn it till it becomes charcoal. Pound it, and sift it through a *fine* muslin. It is then ready for use.

554. *Another Tooth-powder.*—Mix hartshorn shavings, calcined and pulverized, three-fifths; myrrh, pulverized, two-fifths.

555. *A good Dentifrice.*—Dissolve two ounces of borax in three pints of boiling water; before it is quite cold, add one tea-spoonful of tincture of myrrh, and one table-spoonful of spirits of camphor. Bottle the mixture for use. Add one wine-glassful of the solution to half a pint of tepid water, and use it daily. It preserves and beautifies the teeth, arrests decay, and induces a healthy action in the gums.

556. *Camphor Tooth-powder.*—This excellent dentifrice is made by mixing prepared chalk, finely pulverized, and sifted through a fine muslin, with an equal quantity of pulverized camphor, prepared in the same way. It is a good preservative of the teeth.

557. *Orris-root Tooth-powder.*—Mix equal quantities of finely pulverized and sifted orris-root and prepared chalk. Charcoal may be used instead of chalk, in both these receipts, but it must be prepared with great care, else its grittiness will injure the enamel of the teeth.

558. *To whiten the Teeth.*—Mix honey with finely powdered charcoal, and use the paste as a dentifrice.

559. *Wash for the Teeth.*—One ounce of myrrh, powdered, and dissolved in one pint of spirits of wine. A little of this dropped on the tooth-brush, is excellent for the teeth and gums.

560. *To remove Tartar from the Teeth.*—1st. The use of the tooth-brush night and morning, and at least rinsing the mouth after every meal at which animal food is taken. 2d. Once daily run the brush lightly two or three times over soap, then

dip it in salt, and with it clean the teeth, working the brush up and down rather than—or as well as—backwards and forwards. This is a cheap, safe, and effectual dentifrice. 3d. Eat freely of common cress—the sort used with mustard, under the name of small salad; it must be eaten with salt only. If thus used two or three days in succession, it will effectually loosen tartar, even of long standing. The same effect is produced, though perhaps not in an equal degree, by eating strawberries and raspberries, especially the former. A leaf of common green sage rubbed on the teeth, is useful both in cleansing and polishing, and probably many other common vegetable productions also.

561. *Obs.* Soap is not at all a desirable medium for cleaning the teeth, as, though it may whiten for the time, the alkaline process destroys the enamel.

562. *To fill a decayed Tooth.*—When a tooth is too much decayed to be filled by a dentist, or the person is at a distance from one, gutta percha will be found an useful expedient. Drop a small piece of this substance in boiling water, then taking off as much as will probably fill the tooth nearly level, press it, while soft, into the cavity. Then hold cold water in the mouth on that side, to harden it. It has been known to preserve a tooth two years at least, and keeps it free from cold.

FOR THE DRESSING-TABLE.

563. *To make soft Pomatum.*—Beat half a pound of unsalted fresh lard in common water; then soak and beat it in two rose-waters; drain it, and beat it with two spoonfuls of brandy; let it drain from this; add to it some essence of lemon, and keep it in small pots.

564. *Or:* Soak half a pound of clear beef marrow, and one pound of unsalted fresh lard, in water, two or three days, changing and beating it every day. Put it into a sieve, and, when dry, into a jar, and the jar into a saucepan of water. When melted, pour it into a basin, and beat it with two spoonfuls of brandy; drain off the brandy, and then add essence of lemon, bergamot, or any other scent that is liked.

565. *Hard Pomatum.*—Prepare equal quantities of beef marrow and mutton suet, as before, using the brandy to preserve it, and adding the scent; then pour it into moulds, or, if you have none, into phials of the size you choose the rolls to be. When cold, break the bottles, clear away the glass carefully, and put paper round the rolls.

566. *Or:* Take equal quantities of marrow, melted and strained, lard, and castor oil; warm all together; add any scent you please; stir until cold, and put into pots.

567. *Pomade Divine.*—Clear one and a half pound of beef marrow from the strings and bone; put it into an earthen pan or vessel of water fresh from the spring, and change the water night and morning for ten days; then steep it in rose-water twenty-four hours, and drain it in a cloth till quite dry. Take one ounce of each of the following articles, namely: storax, gum-benjamin, and odoriferous cypress powder; half an ounce of cinnamon, two drachms of cloves, and two drachms of nutmeg, all finely powdered: mix them with the marrow above prepared; then put all the ingredients into a pewter pot that holds three pints; make a paste of white of egg and flour, and lay it upon a piece of rag. Over that must be another piece of linen, to cover the top of the pot very close, that none of the steam may evaporate. Put the pot into a large copper pot with water, observing to keep it steady, that it may not reach to the covering of the pot that holds the marrow. As the water shrinks, add more, boiling hot—for it must boil four hours without ceasing a moment. Strain the ointment through a linen cloth into small pots, and, when cold, cover them. Do not touch it with anything but silver. It will keep many years.

568. *To make Jessamine Butter.*—Hog's lard melted, and well washed in fair water, laid an inch thick in a dish, and strewed over with jessamine flowers, will imbibe the scent, and make a very fragrant pomatum.

569. *Rowland's Macassar Oil.*—This is made by boiling castor oil, scenting it with oil of roses, and coloring it, while warm, with alkanet root.

570. *Macassar Oil.*—Common oil, three quarts; spirits of wine, half a pint; cinnamon powder, three ounces; bergamot,

two ounces: heat them together in a large pipkin, then remove it from the fire, and add four small pieces of alkanet root, keeping it closely covered for several hours. Let it then be filtered through a funnel lined with filtering paper.

571. *Wash for the Skin.*—Four ounces of potash, four ounces of rose-water, two ounces of pure brandy, and two ounces of lemon-juice; put all these into two quarts of water, and when you wash, put a table-spoonful or two of the mixture into the basin of water you intend washing in.

572. *To make Milk of Roses.*—To one pint of rose-water, add one ounce of oil of almonds and ten drops of the oil of tartar.

N. B.—Let the oil of tartar be poured in last.

573. *Almond Paste.*—Blanch half a pound of sweet almonds and a quarter of a pound of bitter almonds, and beat them to powder in a mortar with half a pound of loaf sugar; then beat them into a paste with orange-flower water.

574. *Almond Powder.*—Blanch six pounds of bitter almonds, dry and beat them, and press from them one pint of oil; then beat them in an iron mortar, and pass the powder through a sieve. Keep it from air and moisture in a glass jar. Used instead of soap for washing the hands, it imparts a singular delicacy to their appearance.

575. *Violet Powder.*—This preparation is universally applied for drying the skin after washing, especially at the joints, which, if left even damp, produces chaps and chafing, often followed, if neglected, by inflammation. Violet powder is best prepared by mixing three parts of the best wheat starch with one of finely-ground orris-root; the latter adds to the drying power of the starch, and imparts, at the same time, an agreeable odor like that of violet—hence the name of the mixture. It is also prepared by perfuming starch with essential oils, without the addition of orris-root: but, though the scent of the powder is stronger, and to some more tempting to use, it is far less beneficial in its application. The scent, acting as a stimulant to the skin, increases rather than abates any tendency to redness. Unperfumed powder is, therefore, the best to use, dusted over the part with a little brush made of swan's-down, called a puff.

576. *Another Powder for Chaps, &c.*—Take dry hemlock bark, powder it, by rubbing on a fine grater; then sift this powder through gauze or muslin, and sprinkle it lightly on the part chapped. It is a safe and certain curative.

577. *Pearl White.*—Bismuth dissolved in aqua-fortis, is pearl white. This, though at first it whitens, afterwards blackens the skin, as all preparations from lead do; and therfore none of them are safely to be used.—*Dr. Moyes' Lectures.*

578. *Pot-pourri.*—Put into a large china jar the following ingredients in layers, with bay-salt strewed between the layers: two pecks of damask roses, part in buds and part blown; violets, orange-flowers, and jessamine, a handful of each; orris-root sliced, benjamin and storax, two ounces of each; quarter of an ounce of musk; quarter of a pound of angelica root, sliced; a quart of the red parts of clove-gillyflowers; two handfuls of lavender flowers; half a handful of rosemary flowers; bay and laurel leaves, half a handful of each; three Seville oranges, stuck as full of cloves as possible, dried in a cool oven, and pounded; half a handful of knotted marjoram; and two handfuls of balm of Gilead, dried. Cover all quite close. When the pot is uncovered the perfume is very fine.

579. *A quicker sort of sweet Pot-pourri.*—Take three handfuls of orange-flowers, three of clove-gillyflowers, three of damask-roses, one of knotted marjoram, one of lemon-thyme, six bay-leaves, a handful of rosemary, one of myrtle, half of mint, one of lavender, the rind of a lemon, and a quarter of an ounce of cloves. Chop all, and put them in layers, with pounded bay-salt between, up to the tip of the jar.

If all the ingredients cannot be obtained at once, put them in as you get them; always throwing in salt with every new article.

580. *Hungary Water.*—Mix one quart of spirits of wine; half a pint of water; and three-quarters of an ounce of oil of rosemary.

581. *Lavender Water.*—Mix in a quart bottle three drachms of oil of lavender; one pint rectified spirit of wine; shake them

well together, and add an ounce of orange-flower water, an ounce of rose-water, four ounces of distilled water, and, if you like, two or three drachms of essence of musk.

582. *Rose-water.*—When the roses are in full bloom pick the eaves carefully off, and to every quart of water put a peck of them; put them in a cold still over a slow fire, and distil gradually; then bottle the water; let it stand in the bottle three days, and then cork it close.

583. *Another.*—Take two pounds of rose leaves, place them on a napkin tied round the edges of a basin filled with hot water, and put a dish of cold water upon the leaves; keep the bottom water hot, and change the water at top as soon as it begins to grow warm. By this kind of distillation you will extract a great quantity of the essential oil of the roses by a process which cannot be expensive, and will prove very beneficial.

584. *Tincture of Roses.*—Put into a bottle the petals of the common rose, and pour upon them spirits of wine; cork the bottle, and let it stand for two or three months. It will then yield a perfume little inferior to otto of roses. Common vinegar is much improved by a very small quantity of this mixture being added to it.

585. *Honey Water.*—One ounce of essence of bergamot, three drachms of English oil of lavender, half a drachm of oil of cloves, half a drachm of aromatic vinegar, six grains of musk, one and a half pint of spirits of wine. Mix and distil.

586. *Honey Water.*—Take one pint of spirit as above, and three drachms of essence of ambergris; shake them well daily.

587. *Sweet-scented Water.*—Put one quart of rose-water, and the same quantity of orange-water, into a large and wide-mouthed glass: strew upon it two handfuls of jessamine flowers; put the glass in the *balneum mariæ*, or on a slow fire, and when it is distilled, add to it a scruple of musk and the same quantity of ambergris.

588. *A very fine Scent.*—Take six drachms of oil of lavender, three of the essence of bergamot, sixty drops of ambergris, and

two grains of musk. Mix these into a pint of the best rectified spirits of wine.

589. *To whiten the Hands.*—Take a wine-glassful of eau de Cologne, and another of lemon-juice; then scrape two cakes of brown Windsor soap, or the same quantity of pure white soap, to a powder, and mix well in a mould. When hard, it will be excellent for whitening the hands.

590. *Camphor Cerate for Chapped Hands.*—The following receipt was given to the contributor by a maid of honor to Queen Victoria. It is an excellent one. Scrape into an *earthen* vessel one ounce and a half of spermaceti and half an ounce of white wax; add six drachms of pounded camphor, and four table spoonfuls of the best olive oil. Let it stand near the fire till it dissolves, stirring it well when liquid. *Before* the hands are washed, rub them thoroughly with a little of the cerate, then wash them as usual. Putting the cerate on before retiring, answers very well. This quantity costs about twenty-five cents, and will last three winters. The vessel it is kept in should be covered, to prevent evaporation.

591. *Paste for Chapped Hands.*—Mix a quarter of a pound of unsalted lard, which has been washed in soft water, and then in rose-water, with the yolks of two new-laid eggs, and a large spoonful of honey. Add as much fine oatmeal or almond-paste as will work into a paste.

Or:—Blanch one pound of bitter almonds, and pound them smooth in a marble mortar; add half an ounce of camphor, one ounce of honey, quarter of a pound of spermaceti, pounded and mixed with the almonds, till it becomes a smooth paste. Put it into jars, and tie it down till wanted.

592. *To prevent inconvenience from Perspiration of the Hands.*—Ladies who work lace or embroidery sometimes suffer inconvenience from the perspiration on their hands; which may be remedied, by rubbing the hands frequently with a little dry wheaten bran.

593. *Another.*—Any of the milder kinds of soaps will be found to answer the purpose of keeping the hands clean, soft, and as white as nature will permit.

594. *For preserving the Nails.*—One ounce of oil of bitter almonds; one drachm of oil of tartar per deliquium; one ounce of prepared crabs'-eyes. Mix up with essence of lemon, to scent it.

La Forest recommends rubbing the nails with lemon as a detergent.

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595. *To whiten the Nails.*—Mix two drachms of diluted sulphuric acid, one drachm of tincture of myrrh, and four ounces of spring-water. Cleanse the nails with soap, and then dip the fingers in the mixture.

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596. *To remove Stains from the Hands.*—Dip your hands in warm water, and rub on the stain a small portion of oxalic acid powder and cream of tartar, mixed together in equal quantities. Keep it in a box. When the stain disappears, wash the hands with fine soap or almond cream. A box of this stain powder should always be kept on hand.

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597. *To make Wash-balls.*—Shave thin two pounds of new white soap into about a tea-cupful of rose-water, then pour on as much boiling water as will soften it. Put into a brass pan a pint of sweet oil, half an ounce of oil of almonds, half a pound of spermaceti, and set all over the fire till dissolved; then add the soap and half an ounce of camphor, that has first been reduced to powder by rubbing it in a mortar, with a few drops of spirits of wine, or lavender-water, or any other scent. Boil ten minutes, then pour it into a basin, and stir it till it is quite thick enough to roll into hard balls, which must then be done immediately. If essence is used, stir it in quickly after it is taken off the fire.

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598. *Essence of Soap, for shaving or washing hands.*—Take a pound and a half of fine white soap, in thin slices, and add thereto two ounces of salt of tartar; mix them well together, and put this mixture into one quart of spirits of wine, in a bottle which will hold double the quantity of the ingredients: tie a bladder over the mouth of the bottle, and prick a pin through the bladder; set it to digest in a gentle heat, and shake the contents from time to time, taking care to take out the pin at such times, to allow passage for the air from within. When the soap is dissolved, filter the liquor through paper, to free it

from impurities; then scent it with a little bergamot or essence of lemon. It will have the appearance of fine oil, and a small quantity will lather with water like soap, and is much superior in use for washing or shaving.

599. *Naples Soap.*—Put into a pipkin or saucepan half a pint of ley, (strong enough to bear an egg,) with two ounces of lamb suet and one ounce of olive oil; simmer them over a fire until they be thick, when pour the mixture into a flat pan, cover it with glass, and expose it to the heat of the sun for seven weeks, stirring it once a day: the soap will then be made, and may be perfumed with a few drops of oil of ambergris, which should be well mixed. Put the soap into small jars, and it will be improved by keeping.

600. *Transparent Soap.*—Put into a bottle Windsor soap, in thin shavings; half fill with spirits of wine, and set it near the fire till the soap be dissolved, when pour it into a mould to cool.

601. *Genuine Windsor Soap.*—To make this famous soap for washing the hands, shaving, &c., nothing more is necessary than to slice the best white soap as thin as possible, melt it in a stew-pan over a slow fire, scent it well with oil of caraway, and then pour it into a frame or mould made for that purpose, or a small drawer, adapted in size and form to the quantity. When it has stood three or four days in a dry situation, cut into square pieces, and it is ready for use. By this simple mode, substituting any more favorite scent for that of caraway, all persons may suit themselves with a good perfumed soap, at the most trifling expense.

602. *To make Lady Derby's Soap.*—Two ounces of bitter almonds, blanched, one ounce and a quarter of tincture of benjamin, one pound of good plain white soap, and one piece of camphor the size of a walnut. The almonds and camphor are to be beaten in a mortar until they are completely mixed, then work up with them the tincture of benjamin. The mixture being perfectly made, work the soap into it in the same manner. If the smell is too powerful of the camphor and tincture of benjamin, melt the soap by the fire, and the perfume will go off. This soap has been tried by many persons of distinction, is excellent in its qualities for cleansing the skin, and will

be found greatly to assist the complexion, the ingredients being perfectly safe.

603. *To make superior Honey Soap.*—Cut into thin shavings two pounds of common yellow or white soap; put it on the fire with just water enough to keep it from burning: when quite melted, add a quarter of a pound of honey, stirring it till it boils; then take it off, and add a few drops of any agreeable perfume: pour it into a deep dish to cool, and then cut it into squares. It improves by keeping. It will soften and whiten the skin.

604. *Paste for Chapped Lips.*—Put four ounces of olive oil into a bottle with one ounce of alkanet root; stop it up, and set it for some days in the sun, shaking it often until it becomes perfectly bright; then strain the oil from the alkanet, add to it one ounce of white wax, and one ounce and a half of clarified mutton suet: let the mixture simmer a little while over a slow fire. When it begins to cool, mix with it a few drops of any essential oil.

605. *Chapped or Sore Lips*—May be healed by the frequent application of honey-water, and protecting them from the influence of cold air.

606. *Lip Salve.*—Melt together an ounce of white wax, the same of beef marrow, and three ounces of white pomatum, with a small piece of alkanet root, tied in muslin; perfume, when cool, with otto of rose or any other essence. It should be strained while hot.

607. *Bad Breath from Onions.*—A few leaves of parsley eaten with vinegar, will prevent any disagreeable consequences from eating onions.

608. *Wash for the Mouth.*—An excellent wash for the mouth is made of half an ounce of tincture of myrrh and two ounces of Peruvian bark. Keep in a phial for use. A few drops in a glass of water are sufficient.

609. *Eau de Cologne.*—Mix essence of bergamot, lemon, lavender, and orange-flower, of each one drachm; essence of

cinnamon, half a drachm; spirit of rosemary, and honey-water, each two ounces; spirits of wine, one pint: let the mixture stand two weeks, then put it in a glass retort, the body of which immerse in boiling water contained in a vessel placed over a lamp, while the beak of the retort is introduced into a large reservoir (a decanter, for example): keep the water boiling, while the mixture will distil into the receiver, which should be covered with cold wet cloths. In this manner Cologne-water may be obtained as good as the best Farina, at one-fourth the price. A coffee-lamp or nursery-furnace will best answer to boil the water.

The above is the most simple method of *distilling*, without the regular *still*.

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610. *To make Eau de Cologne.*—Rectified spirits of wine, four pints; oil of bergamot, one ounce; oil of lemon, half an ounce; oil of rosemary, half a drachm; oil of Neroli, three-quarters of a drachm; oil of English lavender, one drachm; oil of oranges, one drachm. Mix well, and then filter. If these proportions are too large, smaller ones may be used.

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611. *A very pleasant Perfume, and also preventive against Moths.*—Take of cloves, caraway seeds, nutmeg, mace, cinnamon, and Tonquin beans, of each one ounce; then add as much Florentine orris-root as will equal the other ingredients put together. Grind the whole well to powder, and then put it in little bags, among your clothes, &c.

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612. *Method of extracting Essences from Flowers.*—Procure a quantity of the petals of any flowers which have an agreeable fragrance; card thin layers of cotton, which dip into the finest Florence or Lucca oil; sprinkle a small quantity of fine salt on the flowers, and lay them, a layer of cotton and a layer of flowers, until an earthen vessel or a wide-mouthed glass bottle is full. Tie the top close with a bladder, then lay the vessel in a south aspect to the heat of the sun, and in fifteen days, when uncovered, a fragrant oil may be squeezed away from the whole mass, little inferior (if roses are used) to the highly-valued otto of roses.

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613. *Curious small Cakes of Incense for perfuming Apartments.*—Take equal quantities of lignum rhodium and anise,

in powder, with a little powder of dried Seville orange-peel, and the same of gum benzoin, or benjamin, and beat all together in a marble mortar: then, adding some gum-dragon, or tragacanth, dissolved in rose-water, put in a little civet; beat the whole again together; make up this mixture into small cakes, and place them on paper to dry. One of these cakes being burnt in the largest apartment, will diffuse a most agreeable odor through the whole room.

614. *To perfume Linen.*—Rose-leaves dried in the shade, cloves beat to a powder, and mace, scraped; mix them together, and put the composition into little bags.

615. *To make an excellent Smelling-bottle.*—Take an equal quantity of sal-ammoniac and unslaked lime, pound them separately, then mix, and put them in a bottle to smell to. Before you put in the above, drop two or three drops of the essence of bergamot in the bottle, then cork it close. A drop or two of ether, added to the same, will greatly improve it.

616. *Aromatic Vinegar.*—Throw into two pounds of acetic acid one ounce each of the dried tops of rosemary and the dried leaves of sage, half an ounce each of the dried flowers of lavender and of bruised cloves. Let them remain untouched for seven days; then express the liquid and filter it through paper. This is useful in sick rooms.

617. *Lavender Vinegar.*—Prepare a stone jar or bot le, and to each pint of vinegar put into it, add half an ounce of fresh lavender flowers; cover closely, and set it aside for a day or two; then set the jar upon hot cinders for eight or ten hours; and when cold, strain and bottle it. It is a refreshing perfume.

618. *Spirit and Oil of Roses.*—A few drops of otto of roses, dissolved in spirits of wine, form the *esprit de rose* of the perfumers; and the same quantity dissolved in fine sweet oil, their *huile antique á la rose.*

619. *Essence of Musk.*—Mix one drachm of musk with the same quantity of pounded loaf sugar; add six ounces of spirit of wine: shake together, and pour off for use.

Musk is seldom obtained pure: when it smells of ammonia, it is adulterated. To preserve it, it should be made quite dry; when to be used as a perfume, it should be moistened.

620. *Odeur Delectable.*—Mix four ounces of distilled rose-water, four ounces of orange-flower water, one drachm of oil of cloves, two drachms of oil of bergamot, two grains of musk, one pint of spirits of wine. Macerate thoroughly, and add one drachm of essence of musk. This delicious scent is a universal favorite with the ladies of the *beau monde* in Paris.

621. *Eau D'Ange.*—Pound in a mortar fifteen cloves and one pound of cinnamon; put the whole into a quart of water, with four grains anise-seed; let it stand over a charcoal fire twenty-four hours; then strain off the liquor and bottle it. The perfume is excellent, and will be useful for the hands, face, and hair.

622. *Shaving.*—The hone and razor-strop should be kept in good condition. The German hone is best: it should be frequently moistened with oil, and laid up in a place where it will not readily become dry: if it be rubbed with soap, instead of oil, previously to using, it will give additional keenness and fineness to the edge of the razor.

The strop should also be kept moist with a drop or two of sweet oil: a little crocus and oil rubbed in the strop with a glass bottle will give the razor a fine edge; as will also a paste made of tutty powder and solution of oxalic acid.

Mr. Knight, president of the Horticultural Society, has invented the following apparatus and method of sharpening a razor: Procure a round bar of cast steel, three inches long, and about one-third of an inch in diameter; rub it smooth from end to end with glass paper; next, smear over its surface a paste of oil and the charcoal of wheat straw, and fix the steel into a handle. To set a razor, dip it in hot water, raise its back, and move it without pressure, in circles, from heel to point, and back again; clean the blade on the palm of the hand, and again dip it into hot water. This newly invented apparatus may be purchased at any cutler's.

A very small piece of nitre, dissolved in water and applied to the face after shaving, will remove any unpleasant sensation, though the first application may be somewhat painful.

623. *Shaving Liquids.*—1. Rub in a marble mortar an ounce of any fine soap, with two drachms of carbonate of potassa. When these two substances are incorporated, continue rubbing, and add gradually a pint of lavender-water, or any other odorous water made by dissolving essential oils in alcohol sixty degrees above proof. When the whole is well combined, filter the liquid, and bottle it for use. To make a lather, put a few drops into a wine-glass of tepid water; dip your brush in the mixture, and, when rubbed on the face, a fine lather will appear. 2. Dissolve any quantity of fine soap in alcohol, either with or without perfume. Use it according to the preceding directions.

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624. *An Easy Shave.*—The operation of shaving may be robbed of its unpleasant sensations by rubbing the chin over with grease, or a sweet oil, before the application of the razor. The best razor-strop in the world is one's own hand, moistened with its own natural oil or perspiration. Sharpen the razor thus before you wash your hands, and you will find this natural strop most efficacious. After shaving, to allay irritation, wash the chin with Portugal water.

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625. *Composition for Shaving, without the use of razor, soap, or water.*—Mix one pint and a half of clear lime-water, two ounces of gum-arabic, half an ounce of isinglass, an eighth of an ounce of cochineal, a quarter of an ounce of turmeric-root (made into powder), an eighth of an ounce of salt of tartar, and an eighth of an ounce of cream of tartar, together: boil them for one hour at least (stirring up the mixture during the whole time of boiling, and be careful not to let it boil over), clear it through a sieve; then add two and a half pounds of pumice stone, finely pulverized; mix the whole together with the hands, by the assistance of the white of two eggs, well stirred up. Then divide the cake into twelve small ones. Dry them in the open air for three days; put them into an oven moderately heated for twenty-four hours, when they will be ready for use. Apply them, with a gentle friction, to the beard, and they will produce the effect of shaving by rubbing off the hair.

PART III.

HOME PURSUITS AND DOMESTIC ARTS.

Needle-work, Fancy-work—Preparations for Writing—Flowers—House Plants—Birds—Gold Fish, &c.

The first and best use of the needle is common or plain sewing. Every woman and girl should understand this art, the beginning of all arts, and the most indispensable to civilization.

It is unnecessary to dilate on the importance of common needlework, and to this female accomplishment, so universally necessary, we shall principally confine our directions.

626. *Requisites for Sewing.*—A neat work-box well supplied with all the implements required, including knife, scissors (of at least three sizes), needles and pins in sufficient variety, bodkins, thimbles, thread and cotton, bobbins, marking silks, black lead pencils, &c., should be provided, and be furnished with a lock and key, to prevent the contents being thrown into confusion by children or unauthorized intruders.

The lady, being thus provided, and having her materials, implements, &c., placed in order upon her work-table, to the edge of which it is an advantage to have a pincushion affixed by means of a screw—may commence her work, and proceed with it with pleasure to herself, and without annoyance to any visitor who may favor her with a call. We would recommend, wherever practicable, that the work-table should be made of cedar, and that the windows of the working parlor should open into a garden well supplied with odoriferous flowers and plants, the perfume of which will materially cheer the spirits of those

especially, whose circumstances compel them to devote the greatest portion of their time to sedentary occupations. If these advantages cannot be obtained, at least the room should be well-ventilated, and furnished with a few cheerful plants, and a well-filled scent-jar. The beneficent Creator intended all his children, in whatever station of life they might be placed, to share in the common bounties of his providence; and when she, who works not for pleasure, but to obtain the means of subsistence, is compelled to seclude herself, for days or weeks together, from the cheering influence of exercise in the open air, it becomes both her duty, and that of those for whom she labors, to secure as much of these advantages, or of the best substitutes for them, as the circumstances of the case will admit.

EXPLANATION OF STITCHES.

627. *Hemming.*—Turn down the raw edge as evenly as possible. Flatten, and be careful, especially in turning down the corners. Hem from right to left; bring the point of the needle from the chest toward the right hand. Fasten the thread without a knot, and when you finish, sew several stitches close together, and cut off the thread.

628. *Mantua-maker's Hem.*—You lay the raw edge of one of your pieces a little below that of the other; the upper edge is then turned over the other twice, and felled down as strong as possible.

629. *Sewing and Felling.*—If you have selvages, join them together, and sew them firmly. If you have raw edges, turn down one of the edges once, and the other double the breadth, and then turn half of it back again. This is for the fell. The two pieces are pinned together, face to face, and seamed together—the stitches being in a slanting direction, and just deep enough to hold the separate pieces firmly together. Then flatten the seam with the thumb, turn the work over, and fell it the same as hemming. The thread is fastened by being worked between the pieces, and sewn over.

630. *Running.*—Take *three threads*, *leave three*, and, in order that the work may be kept as firm as possible, back-stitch

occasionally. If you sew selvages, they must be joined evenly together; but if raw edges, one must be turned down once, and the other laid upon it, but a few threads from the top: in this case, it must be felled afterwards.

631. *Stitching.*—The work must be as even as possible. Turn down a piece to stitch to; draw a thread to stitch upon, twelve or fourteen threads from the edge. Being thus prepared, you take *two threads back*, and so bring the needle out from *under two before.* Proceed in this manner to the end of the row; and, in joining a fresh piece of thread, take care to pass the needle between the edges, and so bring it out where the last stitch is finished.

632. *Gathering.*—You begin by taking the article to be gathered, and dividing it into halves, and then into quarters, putting on pins to make the divisions. The piece to which you are intending to gather it, must be gathered about twelve threads from the top, taking three threads on the needle, and leaving four; and so proceeding alternately until one quarter is gathered. Fasten the thread by twisting it round a pin; stroke the gathers, so that they lie evenly and neatly, with a strong needle or pin. You then proceed as before, until all the gathers are gathered. Then take out the pins, and regulate the gathers of each quarter so as to correspond with those of the piece to which it is to be sewed. The gathers are then to be fastened on, one at a time; and the stitches must be in a slanting direction. The part to be gathered must be cut quite even before commencing, or else it will be impossible to make the gathering look well.

633. *Double Gathering, or Puffing.*—This is sometimes employed in setting on frills, and, when executed properly, has a pretty effect. You first gather the top in the usual way; then, having stroked down the gathers, you gather again under the first gathering, and of such a depth as you wish the puffing to be. You then sew on the first gathering to the gown, frock, &c., you design to trim, at a distance corresponding with the width of the puffing, and the second gathering sewed to the edge, so as to form a full hem. You may make a double hem, if you please, by gathering three times instead of only twice; and one of the hems may be straight, while the other is drawn

to one side a little. This requires much exactness in the execution, but, if properly done, it gives a pleasing variety to the work.

634. *German Hemming.*—Turn down both the raw edges once, taking care so to do it as that both turns may be toward your person; you then lay one below the other, so as that the smooth edge of the nearest does not touch the other, but lies just beneath it. The lower one is then to be hemmed or felled to the piece against which you have laid it, still holding it before you. You are next to open your sleeve, or whatever else you have been employed upon, and, laying the upper fold over the lower, fell it down, and the work is done.

635. *Binding.*—Various kinds of work have binding set on to them, in preference to hemming them, or working them in herring-bone stitch. Flannel is generally bound, sometimes with a thin tape, made for the purpose, and called "flannel binding." It is also common to bind flannel with sarcenet riband. The binding is so put on as to show but little over the edge on the right side, where it is hemmed down neatly; on the other side it is run on with small stitches.

636. *Braiding.*—Silk braid looks pretty, and is used for a variety of purposes. In putting it on, it is best to sew it with silk drawn out of the braid, as it is a better match, and the stitches will be less perceived.

637. *Marking.*—It is of essential importance that clothes should be marked and numbered. This is often done with ink; but as some persons like to mark with silk, we shall describe the stitch. Two threads are to be taken each way of the cloth, and the needle must be passed three ways, in order that the stitch may be complete. The first is aslant from the person, toward the right hand; the second is downward toward you; and the third is the reverse of the first—that is, aslant from you, toward the left hand. The needle is to be brought out at the corner of the stitch nearest to that you are about to make. The shapes of the letters or figures can be learned from an inspection of any common sampler.

638. *Piping.*—This is much used in ornamenting children's and other dresses. It is made by enclosing a card of the proper

thickness in a strip of silk cut crosswise, and must be put on as evenly as possible.

639. *Plaiting.*—The plaits must be as even as it is possible to place them one against another. In double plaiting, they lie both ways, and meet in the middle.

640. *To keep Thread, Sewing-silk, &c.*—In making up linen, thread is much preferable to cotton. Sewing-silk should be folded up neatly in wash-leather, and colored threads and cotton in paper, as the air and light are likely to injure them. Buttons, hooks and eyes, and all metal implements, when not in use, should be kept folded up, as exposure to the air not only tarnishes them, but is likely to injure them in a variety of ways.

INSTRUCTIONS IN THE PREPARATION OF HOUSE-LINEN.

641. *Bedroom Linen.*—This includes quilts, blankets, sheets, pillow-covers, towels, table-covers and pincushion-covers.

642. *Quilts.*—These are of various sizes and qualities, in accordance with the purposes to which they are applied. They are generally made of the outside material and the lining—wadding or flannel being laid between—and stitched in diamonds or other devices. The stitches must pass through the whole, and the edges of the quilt are to be secured by a braiding or binding proper for the purpose. They are best done in a frame.

643. *Blankets.*—These are generally bought, ready-prepared for use. It is sometimes necessary to work over the edges at the end, which should be done with scarlet worsted, in a very wide kind of button-hole stitch.

644. *Sheets.*—These are made of fine linen, coarse linen, and cotton-sheeting. Linen sheets are best for summer, and many prefer them at all seasons. If the sheeting is not sufficiently wide for the bed, two lengths must be sewed together. The seam up the middle must be sewed as neatly as possible, and the ends may be either hemmed or seamed: the latter is the preferable method. Sheets and all bedroom linen should be marked and numbered; to add the date of the year is also an advantage.

645. *Pillow-cases.*—These are made of fine or coarse linen, and sometimes of cotton cloth. The material should be of such a width as to correspond with the length of the pillow. One yard and three nails, doubled and seamed up, is the proper size. One end is seamed up, and the other hemmed with a broad hem, and furnished with strings or buttons as is deemed most convenient. We think the preferable way of making pillow covers is to procure a material of a sufficient width, when doubled, to admit the pillow. The selvages are then sewed together, and the ends seamed and hemmed as before directed. Bolster covers are made in nearly the same manner, only that a round patch is let into one end, and a tape for a slot is run into the other.

646. *Towels.*—Towels are made of diaper or huckaback, of a quality adapted to the uses to which they are applicable. They should be one yard long and about ten or twelve nails wide. The best are bought single, and are fringed at the ends. Others are neatly hemmed, and sometimes have a tape-loop attached to them, by which they can be suspended against a wall.

647. *Dressing Table Covers.*—These may be made of any material that is proper for the purpose. Fine diaper generally, but sometimes dimity and muslin are employed, or the table is covered with a kind of Marseilles quilting, which is prepared expressly for the purpose. Sometimes the covers are merely hemmed round, but they look much neater if fringed, or bordered with a moderately full frill. Sometimes a worked border is set on. All depends upon taste and fancy. A neat and genteel appearance, in accordance with the furniture of the apartment, should be especially regarded.

648. *Pincushion Covers.*—A large pincushion, having two covers belonging to it, should belong to each toilet table. The covers are merely a bag into which the cushion is slipped. They may be either worked or plain; always of white muslin or linen cambric; and should have small tassels at each corner, and a frill or fringe all round.

649. *Table Linen.*—This department of plain needlework comprises table-cloths, dinner-napkins, and large and small tray napkins.

650. *Table-cloths.*—These may be purchased either singly, or cut from the piece. In the latter case the ends should be hemmed as neatly as possible, and marked and numbered.

651. *Dinner Napkins.*—These are of various materials; if cut from the piece, they must be hemmed at the ends the same as table-cloths. Large and small tray napkins and knife-box cloths, are made in the same manner. The hemming of all these should be extremely neat. It is a pretty and light employment for very young ladies; little girls even should do this work, and thus early acquire habits of neatness and usefulness, which will prove useful in after life.

652. *Housemaid and Kitchen Linen.*—In the housemaid's department, paint cloths, old and soft, and chamber bottle cloths, fine and soft, are to be provided. To these must be added dusters, flannels for scouring, chamber bucket-cloths, which last should be of a kind and color different from everything else. All these must be neatly hemmed and run, or seamed if necessary. Nothing, in a well-directed family, should bear the impress of neglect, or be suffered to assume an untidy appearance.

653. *Clothes-bags.*—Clothes-bags of different sizes should also be provided, of two yards in length, and either one breadth doubled, in which case only one seam will be required, or of two breadths, which makes the bags more suitable for large articles of clothing. These bags are to be seamed up neatly at the bottom, and to have strings which will draw run in at the top. The best material is canvas, or strong unbleached linen. In the kitchen department, you will require both table and dresser cloths, which should be made as neat as possible.

654. *Mending.*—In cutting up an old garment, it is a great advantage to have a portion of the same material new. For this reason, when purchasing cloth for a new garment, buy a little additional quantity for repairs, and take care that it is kept for that purpose, and not wasted in any way.

It was formerly the custom with all careful women, when buying a dress, to buy an extra yard for new sleeving. To be sure a gown was then more expensive than now; but it should be remembered, that if six gowns can be bought for the money that used to buy three or four, they cannot be made up in the

same time at home, nor for the same money if put out. Any tolerably handy woman, though she may not choose to venture upon cutting out and making a new dress, may repair one, having the old pattern and lining to work by, and the very creases and stitches for a guide. If, by so doing, a gown will wear half as long again, the price of a little over-quantity at first, and a few hours employed on the work, are well bestowed.

The same remark applies to the garments of men. Unless these be bought ready-made, the pieces should be carefully laid by for repairs. In children's clothing, these alterations and repairs are often needed.

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655. *Patchwork.*—Many improvements may be made in patchwork that most of us have been accustomed to see for years. It is a kind of needlework very interesting for little girls; and old ladies frequently resort to this for amusement by their cosy firesides, during the long winter evenings, when tired of reading.

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656. *Of the Materials.—The materials* necessary for patchwork are such portions of wearing apparel, whether cloth, calico, linen, holland, silk, velvet, cotton, &c., such as would otherwise be thrown away, or saved for the rag-man. No matter how small the portion, every scrap has its use. The next necessary article is some stiff paper—old envelopes, backs of letters, brown paper, &c., to form the shapes; lastly, the design—shapes, cut out in *tin*, and the designs themselves.

The materials should be arranged into shades and qualities. After having been cut to required sizes, and the irregularities of the edges neatly repaired, they are ready for use.

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657. *Patterns.*—The *patterns* may be varied *ad infinitum*, if the person possesses the least talent for drawing; but for the sake of those who may not be able to do this, we submit the following simple and effective designs to be executed in any of the materials.

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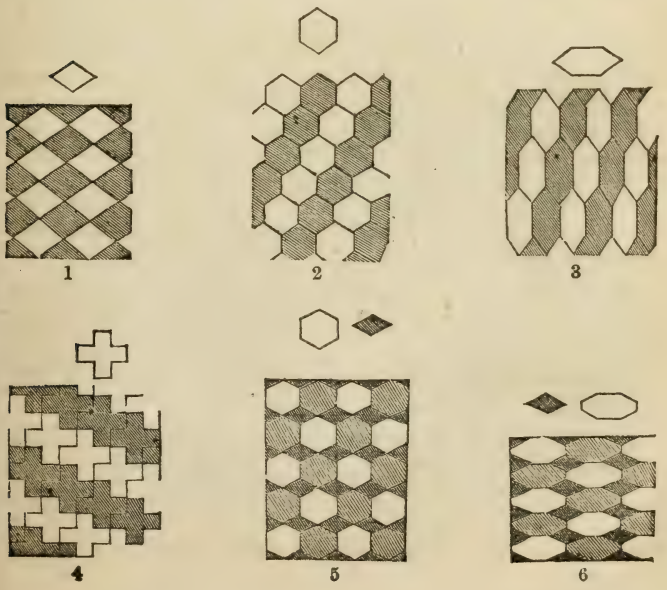
658. *To make the Patchwork.*—The pattern should be placed before the person, and the shades being selected, the several pieces arranged so as to form the design, and the edges then neatly sewed together; after which they are either pressed, or ironed, the papers removed, and the lining proceeded with.

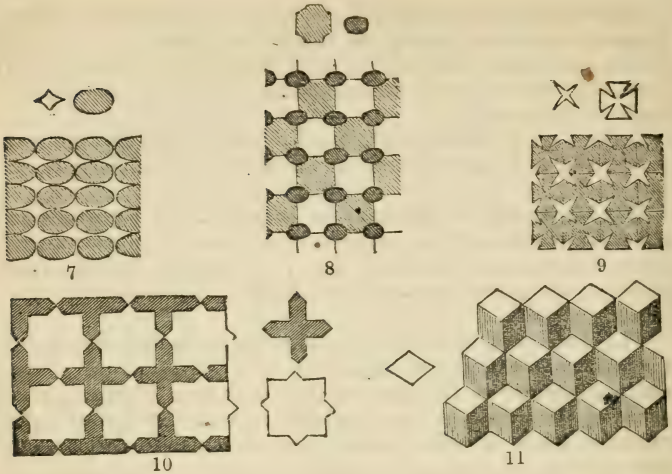
When silks and velvets are employed, it improves the effect to combine the two, taking the silk for the lighter, and the velvet for the darker shades; or, as in figures 5, 6, 8, and 11, to have silk for the lighter shades, and two velvets for the others, shaded to pattern.

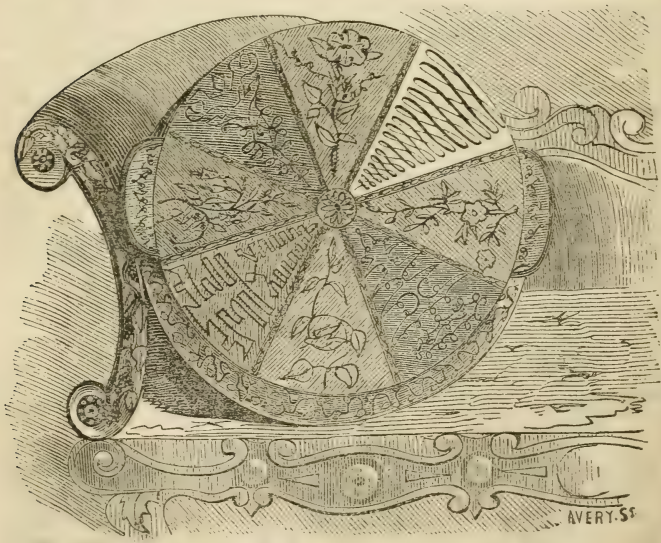
A very pretty effect is produced by combining Holland and calico, silk and satin, silk or satin and velvet, and rough and fine cloth.

The various articles that may be manufactured, are quilts in colored and white calico; anti-macassars in silks; ottomans in silks and velvets, silks and cloth; table-covers in silks and cloth; cushions for chairs or sofas, in silks; and mats, rugs, and carpets, in cloth.

We have seen many useful white quilts for children's cots, made from the cuttings remaining after shirt making. The centre might be of Holland and calico, pattern 10, fig. 5, and then fig. 7, with a fringe border, knitted. Numerous rugs might be made in colored cloths, to look equal to carpets, for poor people, and wear much better.







AN ELEGANT MUSNUD FOR A SOFA.

659. *The materials* required, consist of braid of various hues, purse-silk of different shades, bed-ticking, feathers, down, horse-hair, or worsted ends; the design-shapes, some cord for pipings, the various colored cloths, silks, &c., and a curtain-ring or a piece of cardboard for the centre.

The size varies from fifteen to eighteen inches in diameter, according to taste.

The colors cannot be fixed, because it depends much upon taste, but we have made the elegant musnud given p. 160, by placing cobalt as the right hand centre-piece, then (proceeding from right to left) white, salmon, purple, crimson, amber, pea green, and madder-brown. The handles are amber, the side brown, and the back purple.

It is better, in combining or arranging all colors for patch-work, to keep as near as possible to the harmony observed by Nature; therefore, to attend to the same order displayed in the case of a refracted ray of light, viz., violet, indigo, blue, green, yellow, orange, and red, adding, in this case, white, to represent the ray in its natural state before refraction or dispersion of its colors took place.

To make the Musnud.—Cut two circles of fifteen or eighteen inches in diameter in bed-ticking, and a strip of the same material three inches deep, and thrice the length of the diameter; make into the usual shape, and stuff with feathers, down, horse-hair, or the refuse ends of worsted. Cut out two handles as in the design, of the same material, and sew them on. Rub the *inside* of the bed-ticking with a lump of bees'-wax previous to making up the musnud, (as it prevents the feathers and dust working through,) and tack the centre down.

Cut out the back in a piece of purple moreen, or any other material, then cut four strips of brown cashmere, each three inches deep and five long, join these neatly together to form the side, and braid the following design in bright yellow on it, finishing the veining of the leaves in chain-stitch with purse silk.

The wedge-shaped pieces should now be cut out in the various colored cloths, &c., and braided as in the design, four being braided with floral, and four with fancy designs. Each piece should measure nine inches in length and six inches and three-quarters in breadth at the outer part. The centre piece should measure two inches and a quarter in diameter, be of a dark brown, and braided with a bright yellow star.

To cover the musnud, sew the pieces neatly together, and cover the joining with narrow strips of dark brown cloth, braided in bright yellow to resemble a chain; cover the curtain ring, or circular piece of card-board, with the central piece, and sew it on.

Now affix the pipings cut crossways out of brown cloth, and cover the handles with amber-colored material, braid and pipe them; join the back to the side with an intervening piping, slip the musnud into the lower covering, and sew on the top.

In *braiding* the patterns, the purple ground should have a scarlet braid.

The brown, yellow.

In finishing the braiding, it will require the occasional aid of some chain-stitch work in purse-silk, for the veinings of the leaves, stamens, tendrils, &c.

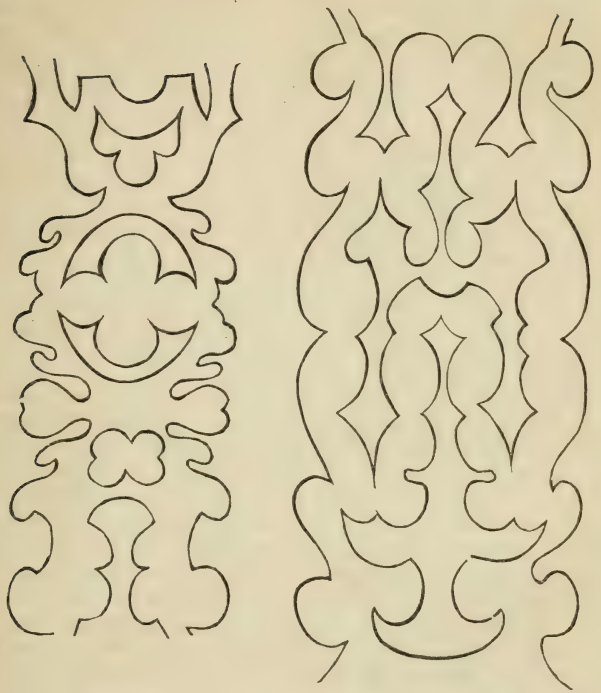
Note.—This particularity in arranging *colors and patterns* may seem very trifling to some people; but rules are required in all finished work. Habits of attention are an important part of education, or, rather, are indispensable to a well-trained mind. Therefore, we say, be particular to do all you undertake in a proper manner; and if you are making *patchwork*, aim at perfection of its kind. But never fall in love with your own creations, and worship them as idols; and never neglect common household duties for fanciful needlework. Remember, also, that *reading* is more refining to the taste than finger-work; and that to *read well* is a much higher accomplishment than any mere skill in counting stitches and matching shades.

FOR SILK EMBROIDERY.

660. *Useful Patterns for working in Cord, Silk, and Muslin.*—These are what are called "endless patterns," to be worked in cord.

These fashions for embroidering the borders of cloaks, pelisses, sacques, &c., on merino, or fine cassimere, or flannel, with silk, are to be wrought with coarse or fine silk, or with a mixture of the two, according to the degree of intricacy or simplicity in the parts of the pattern.

We give two designs; from these, other combinations may be made, to suit the fancy of the embroiderer.



SILK EMBROIDERY, ANOTHER WAY.

See p, 164.

661.—In these patterns for embroidering the borders of cloaks, pelisses, sacques, &c., on merino, or fine cassimere, or flannel, with silk, are to be wrought with coarse or fine silk, or with a mixture of the two, according to the degree of intricacy or simplicity in the parts of the pattern.

These patterns are equally serviceable for muslin, or any other material.

No. 1, to be worked on fine flannel or merino, with a mixture of coarse and fine silk.

No. 2. to be worked on flannel or merino, with fine silk.

No. 1.

No. 2.

662. *Sewing on glazed Calico.*—By passing a cake of white soap a few times over a piece of glazed calico, or any other stiffened material, the needle will penetrate as easily as through any other kind of work.

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663. *To make Glass Jars to look like China.*—Paint figures to resemble those in China jars, and cut them out so that none of the white paper remains; then, with thick gum-arabic water, fasten them to the inside of the glass. Let them stand to dry for twenty-four hours. Then wipe off with a wet cloth the gum-arabic on the glass between the prints, and let them stand a few hours longer. Then take white wax and flake white, ground very fine, and melt them together. With a japanning-brush go over all the glass above the prints: done in this manner, they will hold water. For a blue ground, use white wax and Prussian blue, ground fine; for red, wax and vermilion, or carmine; for green, wax and verdigris; for chocolate, wax and burnt umber.

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664. *To give Plaster Figures the appearance of Marble.*—Put into a well-glazed earthen vessel, four pounds of clear water and one ounce of pure curd soap, grated; add one ounce of white bees'-wax, cut into thin slices. Let them dissolve over a slow fire. As soon as the whole is incorporated, it is fit for use. Let the figure be thoroughly dried, then suspend it by a twine, and dip it once into the varnish; upon taking it out, the varnish will appear to have been absorbed; in two minutes' time, stir the compost, and dip it a second time, which is generally sufficient. Cover it carefully from the dust for a week; then, with a soft muslin rag, rub the figure gently, when a most brilliant gloss will be produced.

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665. *To improve Plaster Casts.*—Brush them over with size, and, when dry, varnish them with copal varnish.

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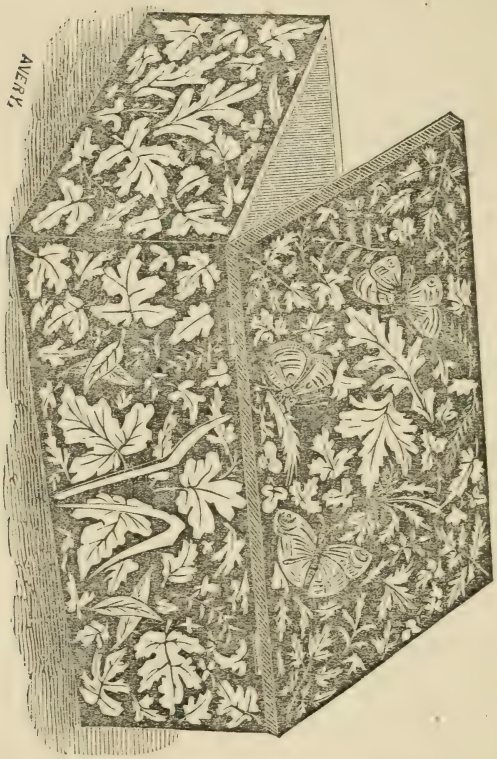
666. *To dissolve Putty.*—To remove old putty from glazed frames, brush over it pearlash and slaked stone-burnt lime, mixed to the thickness of paint.

ANGLO-JAPANESE WORK.



667. This elegant and most useful work is very easy in its execution, while the means and appliances for its performance are within the reach of every one. The materials are simply yellow withered leaves, a little dissolved gum, black paint, and copal varnish: while the objects to be ornamented may be a box, cupboard, table, &c., in fact, any old furniture that has been rendered unsightly by age or long use. A plain deal box, costing about a shilling, may by this process, so far as the outside goes, be converted into a costly-looking dressing-case. An

exquisite chess-board may be made, with very little skill, from a square piece of deal. Flower-pots, pole-screens, folding and hand-screens, may all be decorated in this manner, and, from untidy-looking lumber, may be converted into articles of use, elegance, and beauty; and this at a merely nominal expense, *taste* being the chief requisite in the production. The employment forms one of the most agreeable and pleasing amusements for summer days and winter evenings; in the summer, giving a purpose and an aim to many a joyous ramble, for in these desultory walks a goodly collection may be made of Nature's ambered jewels.

All leaves that are small, of uneven shape, and serrated at the edges, are well adapted for this work. As they are collected, they should be placed between sheets of paper, but not close together, then pressed by placing a board on the top, with a weight upon it, to express any moisture that may be therein, and to render them quite flat. In the autumn, the sweet-scented geranium-leaves, the maple, thorn, chrysanthemum, wild parsley, fern, and a multitude of others, may be found, including the smaller sycamore and small vine-leaves; but they must all have turned of a golden hue, or reddish-tinted yellow. Prepare the article to be ornamented, thus:—First rub the surface smoothly down with sand-paper; then coat it over with black paint, which can be procured, ready-mixed, at any oil-shop; when dry, rub it down smoothly with pumice-stone, and give two more coats. When these are dry, arrange the leaves on the surface in a careless manner, but not in groups, unless preferred. Butterflies drawn, and colored yellow with gamboge, or cut out of prints, and then colored, may be stuck at different spaces with advantage; but there should be no other color than the brown and different tints of yellow in the leaves. Gum the wrong side of the leaf, and press it on in its appointed place with a hard tuft of wadding, fastened tightly up in a piece of silk. Continue this with the whole of the leaves; and when they are all gummed on, dissolve some gelatine or isinglass in warm water, and while rather warm, brush it well over every portion of the work, using the brush entirely one way, not forward and back. When dry, give the work three coats of the best copal varnish, letting the article remain a day or two between each coat. This process, though elaborate in detail, is easily and even quickly done, and will well repay any trouble that may be taken, as, with a renewed coat

of varnish every five or six years, it will remain, as long as the wood will hold together, as bright in appearance as when first finished.

668. *Sealing Wax Varnish.*—For fancy work, this has, of late years, been much used, and if well applied, and the wax good, will be a very good imitation of India Japan. The method of making the varnish or japan is very easy, being simply reducing the wax to a coarse powder, and pouring the best spirits of wine on it in a bottle, and letting it gradually dissolve without heat, shaking the bottle occasionally till it is all dissolved. A two-ounce stick of the best wax will be enough for a quarter of a pint of spirits. Recollect that much depends on the goodness of the sealing-wax; and that you may vary the color of the varnish by using different colored wax. As this varnish dries very quickly, it should not be made until it is wanted for use.

669. *Method of preparing the Composition used for Colored Drawings and Prints, so as to make them resemble Paint in Oil.*—Take of Canada Balsam, one ounce; spirit of turpentine, two ounces; mix them together. Before this composition is applied, the drawing or print should be sized with a solution of isinglass in water, and when dry, apply the varnish with a camel-hair brush.

670. *Oil and Water Gilding.*—In oil gilding, the frame is first covered with a composition of whiting and parchment size, then with a coating of "*oil gold size*," (a kind of varnish,) upon which when nearly dry, gold leaf is applied.

671. *In Water Gilding*, a size mixed with *water* is used. Parts of the frame are burnished, other parts left *dead*. This is the most beautiful and expensive style of gilding, but it does not bear washing as oil gilding does.

["The Carver and Gilder," published by Knight, furnishes much useful information on this subject.]

672. *To mount Prints or Maps.*—Upon a table, floor, or board, stretch a piece of calico or smooth canvas, by first fixing it with tacks along one side, then straining it tightly with one hand, and driving the tacks with the other: nail the remaining edges, leaving no wrinkles on the surface. Paste the back of the print

or map, fold it together, and let it remain until the paper is *soaked*, then open it, and place it evenly on the canvas, cover it with a sheet of clean paper, and beginning in the middle, rub it down carefully with the hand, going from the centre all round to the edges, until all the air is excluded, and the paper adheres closely to the canvas. When quite dry, with a large camel-hair brush lay on a coating of parchment size, repeating this when dry: then varnish with mastic varnish. Parchment size is made by boiling parchment cuttings in water, until it forms a jelly when cold. Mastic varnish may be procured at oil and color-shops.

673. *New Camera Lucida.*—Sir John Robinson devised, a few years since, a cheap and easily-used camera lucida, applicable to the delineation of flowers and other small objects. A piece of plate glass is made to stand in a vertical position by means of a support. It rests on a table covered with white paper, and the object is placed on the paper on one side of the glass. On looking down from that side of the glass diagonally, an image of the object is seen on the paper on the other side, and a drawing of it can be readily taken.

674. *Varnish for Oil Pictures.*—According to the number of your pictures, take the whites of the same number of eggs, and an equal number of pieces of sugar-candy, the size of a hazel-nut, dissolved, and mix it with a tea-spoonful of brandy; beat the whites of your eggs to a froth, and let it settle; take the clear, put it to your brandy and sugar, mix them well together, and varnish over your pictures with it.

This is much better than any other varnish, as it is easily washed off when your pictures want cleaning again.

675. *To take Impressions of Butterflies' Wings.*—Lay the wings gently on paper, wet with gum arabic water, and nearly dry; a copy will be left when the wing is removed, but inferior in beauty to the wing itself. It is better to gum the wings themselves on paper, and paint the body of the fly in its natural position.

676. *To preserve the Eggs of Birds.*—First clean them of their contents. This may be done with the larger eggs by making a hole on one side large enough to admit a quill, and shaking out

the contents. Then wash them well with a solution of camphor, not too strong, or it will make them brittle. When dry, fasten them with gum on the side in which the hole was made to a piece of card board, and write the name under each. As the colors of many of them are perishable, to preserve them give them a slight coating of varnish. The best varnish for this purpose is isinglass dissolved in gin. In cleaning the smaller eggs, make a hole at each end, a little to one side, and blow them. The camphor solution need not be used.

677. *To make Artificial Coral.*—Melt together four parts of yellow resin and one part of vermilion. Dip twigs, cinders or stones in this, and when dry they will resemble coral.

678. *An Excellent Pen-Wiper for Steel Pens.*—Fill a short, wide-mouthed vial with shot, the smaller the better. Whenever it is necessary to clean the pen, rub it up and down in the shot. This is much more effectual than cloth wipers, and the shot will last a life-time.

679. *To preserve Steel Pens.*—Metallic pens may be preserved from rusting by throwing into the bottle containing the ink a few nails, or broken pieces of steel pens, if not varnished. The corrosive action of the acid which the ink contains is expended on the iron so introduced, and will not therefore affect the pen.

680. *Black Paper for drawing Patterns.*—Mix and smooth lamp-black and sweet oil; with a bit of flannel cover a sheet or two of large writing-paper with this mixture; then dab the paper dry with a bit of fine linen, and keep it by for using in the following manner:—Put the black side on another sheet of paper, and fasten the corners together with small pins. Lay on the back of the black paper the pattern to be drawn, and go over it with the point of a steel pencil; the black paper will then leave the impression of the pattern on the under sheet, on which you must draw it with ink.

If you draw patterns on cloth or muslin, do it with a pen dipped in a bit of stone blue, a bit of sugar, and a little water, mixed smooth in a teacup, in which it will be always ready for use, if fresh: wet to a due consistence as wanted.

681. *To make Transparent Paper for Drawing.*—Tracing paper is readily made by taking a sheet of very thin silk, or other paper, and rubbing it over gently with some soft substance, filled with a mixture of equal parts of drying oil, and oil of turpentine, which, being suspended and dried, will be fit for use in a few days; or it may be had at any of the shops. Lay this transparent material on the print or drawing to be transferred, and, with a sharp black lead pencil, trace the outlines exactly as they appear through the paper. If more permanent or stronger lines are wished, ink mixed with ox-gall will be necessary to make it adhere to the oiled surface.

682. *Transparent Paper.*—Wet some fine paper with a feather on both sides with a thin layer of rosin, dissolved in spirits of wine. It will then serve to put over anything you wish to take off.

683. *Method of using Tracing Paper.*—Take a piece of the size required, and rub it equally over, on one side, with black lead, reduced to a powder, till the surface will not readily soil a finger; then lay a piece of white paper with the leaded side of this paper next to it, under the print, and securing them firmly together with pins at the corners, proceed to take the outlines with a blunt point, and some degree of pressure, which will transfer the lead to the clean paper precisely in the direction the point passed over the print; this may be corrected with the black lead pencil, and cleansed of any soil by the crumbs of stale bread.

684. *Method of setting Pencil Drawings.*—A solution of alum water, in which the drawing is to be dipped (not washed on with a brush, as it would smear) will answer the purpose extremely well.

685. *Wash for preserving Drawings made with Black Lead Pencil, or with hard Black Chalk.*—A thin wash of isinglass will fix either black lead or hard black chalk, &c., so as to prevent their rubbing out; or the same effect may be produced by the simple application of skimmed milk. The best way of using the latter, is, to lay the drawing flat upon the surface of the milk, and then, taking it up expeditiously, to hang it by the one corner till it drains and dries. The milk must be perfectly free from cream, or it will grease the paper.

686. *To make Red Sealing Wax.*—To every ounce of shell-lac take half an ounce each of resin and vermilion, all reduced to a fine powder. Melt them over a moderate fire; and when thoroughly incorporated and sufficiently cool, form the composition into what are called sticks. On account of the dearness of shell-lac, seed-lac is usually substituted. A more ordinary sort, but sufficiently good for most occasions, may be made by mixing equal parts of resin and shell-lac with two parts of red lead and one of vermilion. In a still commoner sort, the vermilion is often entirely omitted.

MARKING INK.

687. Mix in six drachms of distilled water, two drachms of sub-nitrate of silver, and two drachms of gum-arabic. For the mordant, mix with four ounces of water, half an ounce of gum-arabic, and half an ounce of sub-carbonate of soda. The article to be marked should first be wetted with the mordant, and pressed smooth, and should be thoroughly dried before it is written upon. The mark should be exposed to the light for some time, to become black.

688. *Permanent Red Ink for marking Linen.*—This useful preparation, which was contrived by Dr. Smellie, of Edinburgh, who was originally a printer in that city, may be used either with types, a hair pencil, or even with a pen: Take half an ounce of vermillion, and a drachm of salt of steel; let them be finely levigated with linseed oil, to the thickness or limpidity required for the occasion. This has not only a very good appearance, but will, it is said, be found perfectly to resist the effects of acids, as well as of all alkaline leys. It may be made of other colors, by substituting the proper articles instead of vermillion.

689. *An Indelible Ink for marking Linen.*—Pour a little aqua-fortis into a cup, and add to it a small piece of pure silver; when the effervescence ceases, filter the solution through a piece of blotting-paper, and put it into a small phial; then add to it a little gum-arabic and a little of the paint called sap-green. After the whole is perfectly combined it is then fit for use.

690. *To take out Writing.*—When recently written, ink may be completely removed by the oxymuriatic acid (concentrated and in solution). The paper is to be washed over repeatedly with the acid; but it will be necessary afterwards to wash it also with lime-water, for the purpose of neutralizing any acid that may be left on the paper, and which would considerably weaken it. But if the ink have been *long* written, it will have undergone such a change as to prevent the preceding process from taking effect. It ought therefore to be washed with liver of sulphur (sulphuret of ammonia), before the oxymuriatic acid is applied. It may be washed with a hair pencil.

691. *To make Old Writing legible.*—Take six bruised gall-nuts, and put them to a pint of strong white wine; let it stand in the sun for forty-eight hours. Dip a brush in it and wash the writing, and by the color you will discover whether the mixture is strong enough of the galls.

692. *Sympathetic Ink.*—With a clean pen write on paper with a solution of muriate of cobalt, so diluted with water, that the writing when dry will be invisible. On gently warming the paper, the writing will appear of a blue or greenish color, which will disappear again when cool. A solution of muriate of copper forms a yellow and sympathetic ink, and acetate of cobalt a rose or purple. If a landscape be drawn representing a winter scene, the paper being overlaid where the foliage should be with the green sympathetic ink, then, on gently warming the drawing, it will represent summer. Sky and water may be drawn with the blue, and standing corn with the yellow ink.

693. *Blue Ink.*—Dissolve a small quantity of indigo in a little oil of vitriol, and add a sufficient quantity of water, in which gum-arabic has been dissolved.

694. *Yellow Ink.*—Dissolve gamboge in a solution of gum arabic.

695. *Scarlet Ink.*—Dissolve vermilion in a solution of gum-arabic.

696. *Red Ink.*—Boil one ounce of Brazil wood in half-a-pint of water for a quarter of an hour; add to the decoction three drachms of gum-arabic, and an ounce of alum.

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697. *Green Ink.*—Verdigris, two ounces; cream of tartar, one ounce; water, half a pint; boil till reduced to one half, and filter.

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698. *Excellent Writing Ink.*—Boil eight ounces of galls in coarse powder, and four ounces of logwood in thin chips, in twelve pints of rain water, for one hour: strain the liquor, and add four ounces of green copperas, three ounces of powdered gum-arabic, one ounce of blue vitriol, and one ounce of rock candy, powdered; stir the mixture until the whole be dissolved, then let it subside twenty-four hours; decant it very steadily, and put it into stone bottles for use.

A clove kept in it will prevent it from becoming mouldy.

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699. *Black Ink.*—To make one gallon, take of pounded blue nutgalls one pound; copperas, six ounces; gum common, four ounces; soft water, one gallon. Dissolve the gum separately by the fire, and add, after it has boiled a quarter of an hour. Let the ink be boiled over a slow fire three-quarters of an hour.

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700. *To make Ink.*—To four ounces of bruised galls, allow two of copperas and two of gum-arabic; put the galls into a large bottle, with three pints of rain water; and, in three or four days, dissolve the gum in hot water, and add it with the copperas. Shake the bottle frequently for some days. A few cloves may be put into the bottle, to prevent the ink from moulding.

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701. *Ink Powder.*—Take five ounces of the cleanest nutgalls, bruise them, and sift the powder very fine; then add one ounce of white copperas, two ounces of Roman vitriol, gum-arabic, half an ounce; pound and sift them very fine. An ounce of this powder will make a pint of very black ink.

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702. *To prevent Ink from moulding.*—Half-a-dozen cloves, bruised with gum-arabic, are to be put into the bottle. If a very fine ink is wanted, white wine, or vinegar and water, should be used, instead of water alone.

703. *To make Indian Ink.*—Put six lighted wicks into a dish of oil; hang an iron or tin concave cover over it, so as to receive all the smoke; when there is a sufficient quantity of soot settled to the cover, then take it off gently with a feather upon a sheet of paper, and mix it up with gum-tragacanth to a proper consistence.

N. B. The clearest oil makes the finest soot, consequently the best ink.

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704. *Indian Ink.*—Take horse-beans, burn them till they are perfectly black, grind them to a fine powder, and, with weak gum-arabic water make it into a paste, and form it into long square cakes.

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705. *To make China Ink.*—Take dried black horse-beans, burn them to a powder, mix them up with gum-arabic water, and bring them to a mass; press it well, and let it dry.

MANAGEMENT OF CANARY-BIRDS.

706. Canary-birds, that are kept tame, will breed three or four times in the year. Towards the middle of March, begin to match your birds, putting one cock and hen into the breeding-cage, which should be large, so that the birds may have room to fly and exercise themselves. Place two boxes or little basket-nests in the cage, for the hen to lay her eggs in, because she will sometimes have a second brood before the first are fit to fly, leaving the care of them to the father-bird, who feeds and brings them up with much care, while she is sitting on her second nest of eggs. Whilst your birds are pairing, feed them, besides the usual seeds, with the yolks of hard-boiled eggs, bread that has been moistened, or, if hard, grated fine, and pounded almond-meat. When the young birds are to be fed, give the same soft food, and be sure have it fresh every day; also furnish the old birds with fresh greens, such as cabbage-lettuce, chickweed, groundsel, &c. Give fresh water every day, and a clean bath every morning. The hen lays, commonly, four or five eggs, and sits fourteen days. When the young are hatched, leave them to the care of the old birds, to nurse and bring up till they can fly and feed themselves, which is, usually in about twenty days.

707. *Gold and Silver Fish.*—Pure rain-water is best to keep these delicate little creatures in; they should never be put into water that has been boiled. It is a good plan to throw them in the morning into a large bowl of fresh water, with a few bread-crumbs in it, and let them remain there an hour. Then put them in pure fresh water in their vases. The water should be changed every day. If the bread remains in the water to become sour, it will kill the fish.

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708. *Improvement in the management of Bees.*—The improvement is that of having double skeps or hives, the one on the top of the other. When the lower skep is filled with honey, it is to be removed after the bees are admitted (through a passage which is made to be opened) into the upper skep; into this skep food must be put, and the bees will remain there, and go on with their work in it. When it is filled with honey, the former skep, with food in it, may be replaced, and the bees again admitted into it. The full skep is then to be taken away. This change of the skeps must always be made about midsummer; and by thus annually removing the full one, more honey will be collected than is usual, and the bees will not be destroyed.

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709. *To preserve Flowers in Water.*—Mix a little carbonate of soda with the water, and it will preserve the flowers for a fortnight. Common saltpetre is also a good preservative.

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710. *To preserve Flowers in Winter.*—Take the latest buds just as they are ready to open; cut them off, leaving the stem about three inches long; cover the end of the stem with melted sealing-wax, and when the buds are a little withered, wrap them separately in paper, and place them in a dry box. When you wish to have the buds blossom, cut off the sealed end, and put them into water in which a little saltpetre has been dissolved. In twelve hours the buds will be open.

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711. *To take Impressions of Leaves.*—Dissolve in a saucerful of water about a tea-spoonful of bichromate of potash. Pass the paper to be used through this solution, and, while wet, press the leaves lightly upon it, and expose it to the sun when it is shining brightly. When perfectly dry, remove the leaves, and a *fac-simile* will be left in a light lemon shade, while the rest of the paper will be of a dark brown.

712. *To preserve the natural color in Petals of dried Flowers.*—Immerse the petals for some minutes in alcohol. The colors will fade at first, but in a short time they will resume, permanently, their natural tint.

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713. *To revive faded Flowers.*—Nearly all flowers may be revived, when faded, by placing one-third of the stalks in hot water; when it has become cold, the flowers will be re-set and fresh; the end of the stalks should then be cut off, and the flowers put into cold water.

Or, dip flowers in spirits of wine for twenty minutes; at first they will appear to have entirely faded; but in drying, the colors will revive, and the fragrance be prolonged.

A few grains of salt put into the water with flowers, will keep them from fading.

Sand may be substituted for water.

Flowers may be preserved throughout the winter, if plucked when they are half-blown, dipped, stalks downward, in equal quantities of water and verjuice mixed, and sprinkled with bay salt. They should be kept in an earthenware vessel, closely covered, and in a warm place; when, in mid-winter, if the flowers oe taken out, washed in cold water, and held before a gentle fire, they will open as if in their first bloom.

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714. *To paint Cloth, Cambric, Sarcenet, &c, so as to render them Transparent.*—Grind to a fine powder three pounds of clear white resin, and put it into two pounds of good nut-oil, to which a strong drying quality has been given: set the mixture over a moderate fire, and keep stirring it till all the resin is dissolved; then put in two pounds of the best Venice turpentine, and keep stirring the whole well together; and if the cloth or cambric be thoroughly varnished on both sides with this mixture, it will be quite transparent. In this operation, the surface upon which the varnish is to be applied, must be stretched tight and made fast during the application. This mode of rendering cloth, &c. transparent, is excellently adapted for window-blinds. The varnish will likewise admit of any design in oil-colors being executed upon it as a transparency.

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715. *Varnish to prevent the rays of the Sun from passing through the glasses of Windows.*—Pulverize gum-tragacanth, and put it to dissolve for twenty-four hours in whites of eggs,

well beaten. Lay a coat of this on the panes of your windows, with a soft brush, and let it dry.

716. *To stain paper or parchment Yellow.*—Paper may be stained of a beautiful yellow, by the tincture of turmeric, formed by infusing an ounce or more of the root, powdered, in a pint of spirit of wine. This, by the addition of water, may be made to give any tint of yellow, from the lightest straw to the full color called French yellow, and will be equal in brightness even to the best dyed silks. If yellow is wanted of a warmer or redder cast, anotta, or dragon's blood, must be added to the tincture.

717. *To stain paper or parchment Crimson.*—A very fine crimson stain may be given to paper, by a tincture of the Indian lake, which may be made by infusing the lake some days in spirit of wine, and then pouring off the tincture from the dregs.

718. *To stain paper or parchment Green.*—Paper or parchment may be stained green by the solution of verdigris in vinegar, or by the crystals of verdigris dissolved in water; also by the solution of copper in aquafortis, made by adding filings of copper, gradually, to the aquafortis, till no ebullition ensues; or, the spirit of salt may be substituted for the aquafortis.

HOUSE-PLANTS.

719. Plants require much light and fresh air; a light garret is an excellent place for them; even those which will not bear the outer air, must have the air of the room frequently freshened by ventilation, to preserve them in health. They should not stand in a draught of air. In frosty weather the windows should be kept close, and at night, the shutters. In sharp frost, instead of stirring out the fire, leave a little on retiring to rest, with a guard before it for security.

As a general rule, never water plants while the sun shines. The time should be in the evening, or early in the morning, unless it be confined to watering the roots, in which case transplanted plants, and others in a growing state, may be watered at any time; and, if they are shaded from the sun, they may also be watered over the tops.

The water, if taken from a well or cold spring, should be exposed one day to the sun, otherwise it will chill the plants. A small quantity only should be applied at a time, that it may have the effect of refreshing rain.

Rain water is the best for plants; next river water; hard spring water is the worst.

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720. *To air Plants, and ventilate Rooms wherein they are contained.*—Plants should have air, every day in the year, to make them grow well; but this matter, in sitting-rooms, will not of course be regulated for their sakes, especially in the colder seasons. Wherever placed, however, some attention should be paid to airing and ventilating the rooms regularly, by opening the windows, and occasionally the doors, in order to excite a free circulation of air. This should be done to a certain extent every day, according to the state of the weather, except in the time of severe frost, when it would not be advisable to admit external air. But at such times, if bad weather be of long continuance, the rooms may be ventilated by means of the doors, and by exciting a current of air in the passages, or other parts of the house.

In very severe frost, or in a continuation of damp weather, moderate fires should be made for the sake of the plants, if placed in rooms not occupied. The window shutters should also be closed at night.

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721. *Hints to Lovers of Flowers.*—A most beautiful and easily-attained show of evergreens may be had by a very simple plan, which has been found to answer remarkably well on a small scale. If geranium branches taken from luxuriant and healthy trees, just before the winter sets in, be cut as for slips, and immersed in soap-water, they will, after drooping for a few days, shed their leaves, put forth fresh ones, and continue in the finest vigor all the winter. By placing a number of bottles thus filled in a flower-basket, with moss to conceal the bottles, a show of evergreens is easily insured for the whole season. They require no fresh water.

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722. *Bulbous Roots.*—The time to put bulbous roots, as the hyacinth, narcissus, and jonquil, into glasses filled with water, is from September to November, and the earliest will begin blooming about Christmas. The glasses should be blue, as that

color best suits the roots; put in water enough to cover the bulb one third; let the water be soft, change it once a week, and put in a pinch of salt at each change. Keep the glasses in a moderately warm place, and near to the light.

They should have fresh water about once in ten days. The leaves should not be plucked off before they decay, or the root will be deprived of much of its natural nourishment. When they have decayed, the bulbs should be taken up, laid in the shade to dry, cleaned, and kept in sand in a dry place till wanted to replant. The offsets should be taken off, and planted according to size.

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723. *Geraniums.*—The shrubby kinds are commonly increased by cuttings, which, if planted in June or July, and placed in the shade, will take root in five weeks. They are the most tender, and when placed out of doors, should be defended from strong winds, and be so placed as to enjoy the sun till eleven o'clock in the morning. As the shrubby kinds grow fast, so as to fill the pots with their roots, and push them through the opening at the bottom, they should be moved every two or three weeks in summer, and the fresh roots cut off. They should also be newly potted twice in the summer: once about a month after they are placed abroad, and again towards the end of August. When this is done, all the roots outside the earth should be pared off, and as much of the old earth removed as can be done without injuring the plants. They should then be planted in a larger pot; some fresh earth should first be laid at the bottom, and on that the plant should be placed, so that the old earth adhering to it may be about an inch below the rim of the pot; it should next be filled up, and the pot slightly shaken: the earth must then be gently pressed down at the top, leaving a little space for water to be given without running over the rim; finally, the plant should be liberally watered, and the stem fastened to a stake, to prevent the wind displacing the roots before they are newly fixed.

As the branches grow, and new leaves are formed at the top of them, the lower ones may die, and should be plucked off every week.

Geranium slips should be planted in May, June, or July, taking only the last year's shoots, from which the leaves must be stripped. When planted, give them water, and place them in the shade: when they have taken root, let them have the

sun in the morning. The slips chosen for cutting should not be such as bear flowers; and they should be inserted about half their length in the earth.

Geraniums, except the shrubby kinds, require shelter from frost only, and should have free air admitted to them, when the weather is not very severe. In sultry weather, they should all be watered liberally every morning, except some few of a succulent nature, which must be watered sparingly; the latter may be known by plucking a leaf from them. Geraniums may be watered three times a week, when not frosty, in winter.

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724. *Artificial Mould for Plants.*—Russian potash, one drachm; water, four ounces; one tea-spoonful of oil. Mix the whole well together. Seeds put in this mixture will grow for a time at least, as well as if planted in common soil.

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725. *To take Impressions of Plants.*—Take half a sheet of fine paper, and cover the surface with sweet oil; let it stand a minute or two, then rub off the superficial oil, and hang the paper in the air; when almost dry, move the paper slowly over the flame of a candle or lamp, till it is perfectly black; lay on it the plant or leaf, place a piece of clean paper over, and rub it equally with the fingers for half a minute. Then place the plant on the paper or scrap-book where it is desired to have the impression, cover it with blotting paper, and, on repeating the rubbing, a representation of the plant will appear equal to the finest engraving. The same piece of black paper will serve for a number of impressions.

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726. *Another Process.*—Burn a common cork till reduced to powder; mix with it a tea-spoonful of olive oil, making a thick paste. Paint the veiny side of the leaf with a camel-hair brush, and lay it, with the painted side down, on a piece of clean paper. Submit it to a strong and even pressure (it is best placed in a book and put under a weight,) for about fifteen minutes; remove the leaf carefully, and there will be an exact representation left. Very veiny leaves are best. These impressions are almost equal to engravings. Collections of them might be made interesting, by having narratives of rambles written under them, stating the features of the spot from which the leaves were gathered.

DIRECTIONS FOR WINDOW-PLANTS.

727. *Through January and February.*—The summer flowering-plants—such as geraniums, fuchsias, &c.—should be kept as nearly dormant as possible, allowing just enough water to prevent flagging, and all the light that can be spared from the more interesting division of winter-bloomers; of the latter class, such things as china-roses, cinerarias, hyacinths and other bulbs, will now be in an active state, some of them flowering, and others about to do so; these must be liberally treated with water. Mignonnette, however, must be excepted. Above everything, keep the leaves clean; they are few in number, and feeble in action, but they have yet an important function to perform; and, without they are kept as healthy as possible, the plant cannot begin a new growth with the vigor it is desirable it should possess. The pots should be occasionally scrubbed with clean water, but do not paint or otherwise fill up their pores, for air is as essential to the roots as to the foliage, and no inconsiderable quantity finds its way to them through the sides of a clean pot. With the same view, the surface of the soil should be frequently stirred; the process keeps it open, prevents the growth of moss and weeds, and imparts a better appearance. The water given should always be rather warmer than the atmosphere of the room; and rain-water, slightly heated, is the best.

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728. *March.*—The whole of these plants will be benefited by re-potting. Geraniums and fuchsias delight in light rich earth; calceolarias (lady's slipper), roses, the chimney campanula, and others which grow as freely, should have a larger proportion of loam; whatever manure is added for either, must be thoroughly decayed. The pots should be perfectly clean, inside and out; take care to have each properly drained with pieces of slate or potsherds, in size and number proportionate to the pot; the larger ones require from one to three inches of this drainage. In removing the plants, take off the matted fibres with a knife; loosen the soil moderately, and, when in its place, press the new earth tightly round it; give a gentle watering, and keep them rather warm for a few days; afterwards they should have plenty of air on fine days, and water as they become dry. Station each where it may receive the direct light, and pay particular attention to keeping the leaves clean.

729. *April.*—On the attention given through this month, most of the success for the season will depend. The plants are now, or ought to be, in a very active growth, which must be encouraged by moderate and regular supplies of water and air. Pinch out the points of the growing shoots of such plants as are required to become bushy; this is commonly called "stopping," and, with such things as geraniums, fuchsias, myrtles, and others of similar habit, is very necessary. Cactuses must have a sunny position, and plenty of water. Mignonette in pots and boxes, will require thinning, so as to leave the plants about three inches apart. The several kinds of China roses form beautiful window ornaments, and occasion but little trouble: at this time they are coming rapidly into bloom. Look for and destroy insects of all sorts, every few days; they multiply so fast, that without constant attention, the plants are soon overrun. The leaves must be kept clear of dust, and the branches properly tied out to sticks, that the centre may receive its due share of light.

730. *May.*—As the influence of the advancing season and power of the sun begins to be felt, the management of window-plants becomes easier, and must be gradually changed from the careful nursing hitherto necessary, to a course of almost constant exposure that will render the plants robust and hardy.

731. *June.*—From this time till the middle of September, plants in pots may be placed out of doors; they are, in fact, better in the open air, than in the heated atmosphere of a room. Except in stormy seasons, they may stand out night and day, in some slightly-sheltered spot. As a precaution against the effects of strong sun-light, it is advisable to place the pots in which the plants grow, into others a size or two larger, and fill the space between them with moss; for many plants, having slender fibrous roots, are easily injured by the heat of the sun scorching them through the pot. Such as stand upon the ground, should have a thick layer of ashes spread for them, to prevent worms from creeping in. Wash their leaves frequently with clean water, and remove insects. When any portion of the collection is kept in-doors, a window facing the north or west is to be preferred, and plenty of air must be admitted. As soon as geraniums have done flowering, they should be cut down, re-potted, and the tops struck, to form plants for next

year. This is a good time to propagate nearly all kinds of pot-plants; most of them strike with freedom on a warm border in sandy soil, covered with a glass, and kept moderately watered. Myrtles, and some other hard-wooded plants, may be struck by placing the cuttings, for about half their length, into a phial filled with water. Seeds must be sown in light earth, as soon as they are thoroughly ripe.

732. *July.*—Fuchsias, in a growing state, should receive a final potting: place them in large, perfectly clean pots, using a mixture of turfy loam and peat, or leaf mould; train the shoots, and water liberally. Geraniums that have done flowering, should also be re-potted; they require a lighter soil, such as one part turfy loam, two parts leaf mould, and the remainder sand: cut down the tops to within two or three joints of their base, and set the plants in a warm sheltered place, to induce them to grow again: the cuttings may be struck in a frame or hand-glass, and will form nice plants by next season. Cactuses should be kept in a sunny situation, and have plenty of water. Camellias which have made their season's growth, may be set out of doors, to ripen. China roses may be re-potted, if requisite, and are easily propagated now, in the same manner as geraniums. Separate and pot violets, for early spring-flowering; keep them and similar plants, as the cyclamen, &c., in the most shaded place out of doors. The whole tribe of lilies are handsome window-plants, and some of the dwarf Japan kinds peculiarly adapted for the purpose; they are just beginning to bloom, and should have plenty of air and water. The Chinese primrose may be sown in pots of light rich earth, and, if covered with a piece of glass, will vegetate quickly, and form nice plants by the autumn. Propagation of such plants as myrtles, sweet-scented verbena, or lemon plant, chimney campanulas, &c., is now easy, and should be attended to without loss of time. Water all the plants with regularity, and in quantities proportionate to their size and the state of the weather; but particularly keep the leaves clean, by frequent sprinklings of clean water and sponging. The essential points in the culture of every plant, is to allow the functions of both roots and leaves to be carried on in a proper manner—the first, by placing them in suitable soil, and the latter, by clearing them of all impurities.

733. *August*—Needs only a continuance of the attention recommended last month. Let them have plenty of air, light, and water, with a slight protection from the mid-day sun; propagation may still be carried on successfully. Pot the bella-donna and Guernsey lilies, to flower in autumn; and the young plants of the Chinese primrose should be placed three or four together, in pots of light rich earth, and nursed, to forward their growth as far as possible.

734. *September.*—The geraniums cut down in July, will now be pushing forth a number of young shoots; these must be encouraged as much as possible, by keeping the plants in a sheltered place, and duly supplying them with moisture. When the shoots have grown two or three joints, they should be stopped by picking out the points, in order to render them bushy. The cuttings made at the same period will now be fit for potting; put each one separately into a small pot, and treat them as the older plants. Young plants of myrtles, and indeed all others that are properly rooted, should receive similar treatment. Cinerarias are among the most useful of spring-flowering plants, and if a few seedlings can be obtained now, they will make nice plants, with the treatment recommended for geraniums. Cyclamen, Guernsey, or Bella-donna lilies, and Lachenalias should be repotted; the first and last are very handsome spring-flowering plants, and the lilies are exceedingly beautiful through October and November; all of them are of reasonable price, and well worth adding to the usual stock of window plants. Fill a few pots with fibrous loam, and sprinkle them over with mignonette, nemophilla insignis, and intermediate stocks; leave the pots in the open air, and thin the plants to about three or four of the strongest, as soon as they can be handled. Pot off china primroses, putting one plant into each three-inch pot. Encourage the chrysanthemums in pots with alternate applications of manure water, repot the strongest, and allow them all plenty of room, or the leaves are liable to injury. Set all plants as they grow out of flower in the sun, to ripen their wood, but do not let them suffer from drought.

735. *October.*—The principal endeavor among this class of plants must now be directed towards getting them into a state of rest; water very cautiously, giving air whenever the weather will permit, and at all times let them enjoy whatever sunshine

occurs, and uninterrupted light. Now that the respiring power of the leaves becomes lessened, it is most essential that every particle of dust be carefully removed; the surface of the soil in which they grow should be occasionally stirred, to keep it clean and porous, and even the outside of the pots should be washed, for the same end. If it be necessary to stand the pots in saucers, when the plants are watered, the waste which runs through should be regularly emptied away, as much mischief ensues from allowing the roots to remain in the water.

736. *November.*—The directions given last month must be closely observed throughout the remainder of the year. The great object being to keep the majority of the plants in a resting condition, that they may start the more vigorously on the return of genial weather. Winter, or early spring-flowering plants, such as violets, China primroses, cyclamen, and roses, are, however, to be excepted from this rule; they are now in an active state, and must be encouraged accordingly. As soon as hyacinths and other bulbs, placed in pots last month, have become pretty well rooted, they may be brought into the window, and being placed near the light, will grow rapidly; those in glasses should have the water changed once or twice a week. Chrysanthemums in pots require plenty of water while in bloom, and when their beauty declines, the plants should be taken to a warm part of the garden, or placed in a light shed, to complete their maturity.

737. *December.*—If the geraniums or other plants taken from the borders in autumn, exhibit signs of rottenness, remove the decaying parts, and dust the wounds with quick-lime or sulphur, keep them comparatively dry and as much exposed to the sun as possible; air is essential whenever it can be admitted. Remember previous directions regarding the employment of pans; they are a most fatal source of disease and death when left with water in them. Water sparingly, keep the leaves clean, and wait patiently. Flowering plants must still form the exception, as mentioned last month.

738. *To manage a Watch.—First:* Wind your watch as nearly as possible at the same hour every day. *Secondly:* Be careful that your key is in good condition, as there is much danger of injuring the machine when the key is worn or cracked;

there are more mainsprings and chains broken through a jerk in winding, than from any other cause, which injury will, sooner or later, be the result, if the key be in bad order. *Thirdly:* As all metals contract by cold, and expand by heat, it must be manifest, that to keep the watch as nearly as possible at one temperature, is a necessary piece of attention. *Fourthly:* Keep the watch as constantly as possible in one position—that is, if it hangs by day, let it hang by night against something soft. *Fifthly:* the hands of a pocket-chronometer or duplex watch, should never be set backwards; in other watches this is a matter of no consequence. *Sixthly:* The glass should never be opened in watches that set and regulate at the back. One or two other directions more, it is of vital importance that you bear in mind. On regulating a watch, should it be fast, move the regulator a trifle towards the slow, and if going slow, do the reverse; you cannot move the regulator too slightly or too gently at a time, and the only inconvenience that can arise is, that you may have to perform the duty more than once. On the contrary, if you move the regulator too much at a time you will be as far, if not farther than ever, from attaining your object; so that you may repeat the movement until quite tired and disappointed—stoutly blaming both watch and watch-maker, while the fault is entirely your own. Again, you cannot be too careful in respect of the nature and condition of your watch-pocket; see that it be made of some material that is soft and pliant—such as wash-leather, which is the best; and, also, that there be no flue or nap that may be torn off when taking the watch out of the pocket. Cleanliness, too, is as needful here as in the key before winding; for if there be dust or dirt in either instance, it will, you may rely upon it, work its way into the watch, as well as wear away the engine turning of the case.

PART IV.

DOMESTIC ECONOMY, AND OTHER MATTERS WORTH KNOWING.

Of the different kinds of Tea, Coffee, &c.—Preserving Fruits, Flowers, &c.—Care of Fires—and other Hints.

TEAS.

739.—The names of the different kinds of tea, relate to the time of their being gathered, or to some peculiarity in their manufacture. It is a general rule, that all tea is fine in proportion to the tenderness and immaturity of the leaves. The quality and value of the different kinds diminish as they are gathered later in the season.

Black Teas.—As soon as the leaf-bud begins to expand, it is gathered to make *Pekoe*. A few days' later growth produces black-leaved Pekoe. The next picking is called *Souchong;* as the leaves grow larger and more mature, they form *Congou;* and the last picking is *Bohea*.

Bohea is called by the Chinese, *Ta-cha* (large tea), on account of the maturity and size of the leaves; it contains a larger proportion of woody fibre than other teas, and its infusion is of a darker color and coarser flavor.

Congou, the next higher kind, is named from a corruption of the Chinese *Koong-foa* (great care, or assiduity). This forms the bulk of the black tea imported, and is mostly valued for its strength.

Souchong—Seaou-choong (small, scarce sort), is the finest of the stronger black tea, with a leaf that is generally entire and curly. It is much esteemed for its fragrance and fine flavor.

Pekoe is a corruption of the Canton name, *Pak-ho* (white

down), being the first sprouts of the leaf-buds; they are covered with a white silky down. It is a delicate tea, rather deficient in strength, and is principally used for flavoring other teas.

740. GREEN TEAS.—The following are the principal kinds: *Twankay*, *Hyson-Skin*, *Hyson*, *Gunpowder*, and *Young Hyson*.

Young Hyson is a delicate young leaf, called in the original language, *Yu-tsien* (before the rains), because gathered in the early spring.

Hyson, from the Chinese word *He-tchune*, which means, flourishing spring. This fine tea is gathered early in the season, and prepared with great care and labor. Each leaf is picked separately, and nipped off above the footstalk, and every separate leaf is rolled in the hand. It is much esteemed for its flavor.

Gunpowder Tea is only Hyson rolled and rounded, to give it the *granular* appearance whence it derives its name. The Chinese call it *Choo-cha* (pearl tea).

Hyson-Skin is so named from the Chinese term, in which connection *skin* means the refuse, or inferior portion. In preparing Hyson, all leaves that are of a coarse yellow, or imperfectly twisted appearance, are separated, and sold as *skin-tea*, at an inferior price.

Twankay is the last picking of green tea, and the leaf is not rolled or twisted as much as the dearer descriptions. There is altogether less trouble bestowed on the preparation.

COFFEE.

741.—The infusion or decoction of the roasted seeds of the coffee-berry, when not too strong, is a wholesome, exhilarating, and strengthening beverage; and, when mixed with a large proportion of milk, is a proper article of diet for literary and sedentary people. It is especially suited to persons advanced in years. People who are bilious and liable to costiveness, should abstain from it. When drank very strong, it proves stimulating and heating in a considerable degree, creating thirst and producing watchfulness. By an abusive indulgence in this drink, the organs of digestion are impaired, the appetite is destroyed, nutrition is impeded, and emaciation, general debility, paralytic affections, and nervous fever, are brought on.

742. *Proper method of making Toast and Water, and the advantages resulting therefrom.*—Take a slice of fine and stale loaf-bread, cut very thin—as thin as toast is ever cut—and let it be carefully toasted on both sides, until it be *completely browned all over*, but nowise blackened or burned in any way. Put this into a common deep stone or china jug, and pour over it, from the tea-kettle, as much clean boiling water as you wish to make into drink. Much depends on the water being actually in a boiling state. Cover the jug with a saucer or plate, and let the drink cool until it be quite cold; it is then fit to be used. The fresher it is made the better, and of course the more agreeable. The above will be found a pleasant, light, and highly-diuretic drink. It is peculiarly grateful to the stomach, and excellent for carrying off the effects of any excess in drinking. It is also a most excellent drink at meals, and may be used in the summer-time, if more agreeable to the drinker.

743. *Baked Milk.*—Put half a gallon of milk into a jar, and tie it down with writing-paper. Let it stand in a moderately warm oven about eight or ten hours. It will then be of the consistence of cream. It is used by persons who are weak or consumptive.

744. *Substitute for Cream, in Tea or Coffee.*—Beat the white of an egg to a froth, put to it a very small lump of butter, and mix well. Then turn the coffee to it gradually, so that it may not curdle. If perfectly done, it will be an excellent substitute for cream. For tea, omit the butter, using only the egg. This might be of great use at sea, as eggs can be preserved fresh in various ways.

745. *Economical use of Nutmegs.*—If a person begin to grate a nutmeg at the *stalk* end, it will prove hollow throughout; whereas the *same* nutmeg, grated from the *other* end, would have proved sound and solid to the last. This circumstance may thus be accounted for:—The centre of a nutmeg consists of a number of fibres issuing from the stalk, and its continuation through the centre of the fruit; the other ends of which fibres, though closely surrounded and pressed by the fruit, do not adhere to it. When the stalk is grated away, those fibres, having lost their hold, gradually drop out, and the nutmeg appears hollow: as more of the stalk is grated away, others drop out

in succession, and the hollow continues through the whole nut. By beginning at the contrary end, the fibres above-mentioned are grated off at their core end, with the surrounding fruit, and do not drop out and cause a hole.

746. *To ascertain the quality of Nutmegs.*—Oil of nutmegs being of great value, it is often extracted from the nuts which are exposed to sale, and which are thereby rendered of very little value. To ascertain the quality of nutmegs, force a pin into them; and if good, however dry they may appear, the oil will be seen oozing out all round the pin.

747. *Essence of Nutmeg*—Is made by dissolving one ounce of the essential oil in a pint of rectified spirits. It is an expensive but invaluable mode of flavoring, in the arts of the cook or confectioner.

748. *To make Essence of Celery.*—Soak for a fortnight half an ounce of the seeds of celery in one gill of brandy. A few drops will flavor a pint of soup or broth equal to a head of celery.

749. *Tincture of Lemon-peel.*—Fill a wide-mouthed pint bottle half full of brandy; when a lemon is used, pare off the rind very thin, and put it into the brandy. In two weeks the spirit will be strongly impregnated with the flavor of the lemon.

750. *To test the purity of Spirits.*—See if the liquor will burn away entirely: or, place a hollow ivory-ball in it; the deeper the ball sinks, the lighter the liquor, and consequently more spirituous.

751. *To purify Olive Oil.*—Turn the oil into a crock or bottle, and pour in a quantity of pure water; shake the vessel vigorously, and let it stand two hours. The mucilaginous matter which is the cause of rancidity, will be separated from the oil, and remain in the water. The oil can be decanted, and rebottled for use.

752. *To preserve Eggs.*—The most simple and easy mode of preserving eggs, is to rub the outside of the shell, as soon as gathered from the nest, with a little butter, or any other grease

that is not fetid. By filling up the pores of the shell, the evaporation of the liquid part of the egg is prevented; and either by that means, or by excluding the external air, which Fourcroy supposes destroys the milkiness which most people are fond of in new-laid eggs, that milkiness will be preserved for months, as perfect as when the egg was taken from the nest.

753. *Cream preserved in Long Voyages.*—Mix with a quantity of fresh rich cream half its weight of white sugar in powder; stir the whole well together, and preserve it in bottles well corked. In this state it is ready to mix with tea or coffee, and has continued in good condition during a voyage to America.

754. *To preserve Hazel Nuts in great perfection for many months.*—Hazel nuts may be kept a long time in full kernel by burying them in earthen pots, well closed, a foot or two in the ground. They keep best in gravelly or sandy places.

755. *Easy Method of preserving Animal Food.*—Fresh meat may be kept for nine or ten days perfectly sweet and good, in the heat of summer, by lightly covering the same with bran, and hanging it in a high and windy room; a cupboard full of small holes, or a wire safe, is recommended to be placed in such a room, to keep away the flies.

756. *To purify Lemon-juice.*—Add one ounce of pulverized, well burnt charcoal, to a quart of lemon-juice; after standing twelve hours, filter the juice through white blotting-paper; it will keep good several years in a cellar, in a bottle, well corked; a thick crust will form beneath the cork, and the mucilage will fall to the bottom.

757. *To detect Copper in Liquids.*—Spirit of hartshorn mixed with them, turns them blue. Therefore tea is not dried on copper, as an infusion of it is not turned blue by this mixture. Cider, being passed through brass pots, is detected by this experiment.—*Dr. Moyes' Lectures.*

758. *To detect the Mixture of Arsenic.*—A solution of blue vitriol dropped into any liquid in which arsenic has been put, will turn it green.

759. *To test Mushrooms.*—Rub the upper skin with a gold ring or any piece of gold: the part rubbed will turn yellow if it is a *poisonous fungus.*

760. *To prepare Salt.*—Set a lump of salt in a plate before the fire, and when dry, pound it in a mortar, or rub two pieces of salt together; it will then be free from lumps, and in very fine powder.

761. *To make Cheap and Good Vinegar.*—To eight gallons of clear rain water, add three quarts of molasses; turn the mixture into a clean tight cask, shake it well two or three times, and add three spoonsful of good yeast, or two yeast cakes. Place the cask in a warm place, and in ten or fifteen days, add a sheet of common wrapping-paper, smeared with molasses, and torn into narrow strips, and you will have good vinegar. The paper is necessary to form the "mother," or life of the liquor.

762. *To prevent Mouldiness.*—The best preventive is any of the essential oils, as the oil of lavender, cloves, peppermint, &c. Russia leather, which is scented with the tar of the birch-tree, is not subject to mouldiness, and books bound in it will even prevent mouldiness in other books bound in calf, near which they happen to lie.

Aromatic seeds are not subject to mould, and gingerbread, or cakes containing caraway seeds are far less liable to mouldiness than plain bread. Children have been poisoned by eating mouldy bread.

763. *To keep Fruits.*—To preserve fruits, you must keep them in a room rather above the ground floor, sheltered alike from the sun and damp; it is even prudent, in order to avoid opening the windows, to let out the humid exhalations of the fruit, to have a stove in the room, and light a fire in it now and then. The decaying fruit should be carefully removed. Cherries, grapes, &c., are kept sound by hanging them to threads, and then inclosing them in new boxes or barrels; these are closed as tightly as possible, and deposited in a dry place. Some preserve them by laying them in sawdust or bran.

764. *To preserve Apples.*—Dry a glazed jar perfectly well, put a few pebbles in the bottom; fill the jar with apples, and

cover it with a bit of wood made to fit exactly; and over that, put a little fresh mortar. The pebbles attract the damp of the apples. The mortar draws the air from the jar, and leaves the apples free from its pressure, which, together with the principle of putrefaction which the air contains, are the causes of decay. Apples, kept thus, have been found quite sound, fair, and juicy, in July.

765. *To keep Potatoes from frost.*—If you have not a convenient store-place for them, dig a trench three or four feet deep, into which they are to be laid as they are taken up, and then covered with the earth taken out of the trench, raised up in the middle like the roof of a house, and covered with straw, to carry off the rain. They will be thus preserved from the frost, and can be taken up as they are wanted.

766. *To dry Corn for winter use.*—Sweet corn is the best. Husk it. Have a pot of boiling water—put in your corn and let it boil three minutes—then cut it from the cobs and put it in pans in a warm oven. It must be stirred frequently; when perfectly dry put it away in bags. When wanted for use, soak it all night, next day boil it an hour with a little salt; before it is dished stir in flour, pepper, and butter.

767. *To preserve Aromatic and other Herbs.*—The boxes and drawers in which vegetable matters are kept should not impart to them any smell or taste; and more certainly to avoid this, they should be lined with paper. Such as are volatile, of a delicate texture, or subject to suffer from insects, must be kept in well covered glasses. Fruits and oily seeds, which are apt to become rancid, must be kept in a cool and dry, but by no means in a warm or moist place.

768. *To dry Herbs.*—Dry the gathered crop, thinly spread out, and shaded from the sun; tie the herbs in small bundles, and keep them compactly pressed down and covered with white paper. Or, after drying them, put each sort into a small box, and by means of boards, of the size of the interior length and width of the box, and a screw-press, press the herbs into cakes, or little trusses. These should be afterwards carefully wrapped up in paper, and be kept in a dry place, when they will retain their aroma as perfectly as when they were put into the press.

for, at least, three years. By the common mode of hanging up herbs in loose bundles, the odor soon escapes.

769. *To dry Chamomile Flowers.*—Pull them, from time to time, as they are produced; for the plants continue to blossom in succession for several months. When gathered, dry them gradually, partly in the sun, and partly in the shade, by being spread upon a mat or sheet, removed out of the sun in the heat of the day, and placed in it mornings and evenings.

Lavender Flowers should also be dried as chamomiles.

Marigold Flowers, dried, improve broths and soups, however much they may have got into disuse.

770. *Winter Herbs.*—The best time for gathering herbs for winter use is when they are in blossom. If left till they are in seed, the strength goes to the seed. They are best picked from the stocks, dried quickly (but not burnt), before the fire, and rubbed into powder, then bottled.

771. *Galvanism a Protector of Trees.*—A German journal states that the application of galvanism has been made in Austria for preserving trees and plants from the ravages of insects. The process is very simple, consisting only in placing two rings, one of copper, the other of zinc, attached together, around the tree or plant. Any insect that touches the copper receives an electric shock, which kills it or causes it to fall to the ground.

772. *Moss on Trees.*—The following is an excellent application to the scraped trunk to prevent the growth of moss, and destroy eggs of insects. One gallon of soft soap, one pound of flour of sulphur, and one quart of salt, to be well stirred together and put on with a hard brush.

773. *To destroy Caterpillars in Gooseberry Trees.*—Gather dust from any turnpike road, and shake it well among the trees, and the caterpillars will immediately fall to the ground. It is an excellent plan to dust the trees twice or three times a week, as it will effectually prevent the lodgment of caterpillars.

774. *A neat method of Grafting.*—Prepare the stock and the graft in the same way as for grafting with clay in the common

way. Then take a long slip of India-rubber, three-quarters of an inch broad, and about the thickness of a shilling. Tie one end of this elastic riband with a thread, well prepared by rubbing with shoemakers' wax, to the stock, a little below where it is cut for being joined to the graft; then make the joint as neatly as possible, and wrap it round with the riband, taking due care to keep the India-rubber fully stretched, and to make it overlap at each turn fully one-half of the breadth of the previous round, till the whole is covered, then tie the top with a thread in the same manner as at the bottom, and the operation is finished. After grafting the trees in the manner described, nothing is done to them till they are completely set, when the India-rubber slips are taken off to be ready again for the next year. When opened up, there is scarcely any appearance of a joint, and altogether they are much neater than when done with clay.

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775. *To Kill Vermin on Plants.*—Tobacco water is much used for the above purposes; it is made by pouring a gallon of boiling water upon a pound of tobacco leaves, and straining it in twenty minutes.

Or, syringe the plants with this mixture: put into a jar five gallons of spring water and four ounces of chloride of lime, to which add four ounces of vitriol; when the lime is precipitated, pour off the clear solution, and keep it air-tight.

Or, mix coal tar and water, and sprinkle it over the infected plants.

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776. *To Propagate Plants.*—It may be received as a general principle, that all plants which produce shoots may be propagated by cuttings; though some plants are much more difficult to propagate in this manner than others. Generally speaking, all the soft-wooded plants which have abundance of sap, such as geraniums, fuchsias, petunias, and verbenas, strike root readily. The usual mode for striking cuttings is to put them in fine sand, and to cover them with a bell-glass. Some cuttings which are difficult to strike are directed to have bottom heat; that is, the pots in which they are planted should be plunged into a hot-bed, that the stimulus afforded by the heat may induce the cuttings to throw out roots.

777. *Plants watered by being placed in Dishes, improper.*—The practice of placing flats or saucers under plants, and feeding them by the roots, that is, pouring the water continually into these dishes, and never on the earth at top, is highly improper. The water should always be poured on the surface of the earth, that it may filter completely through it, to the benefit and refreshment of the fibres.

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778. *When to plant Annual and Perennial Flowers.*—Many kinds of annuals and perennials, sown in March and the beginning of April, will be fit for transplanting about the end of May, and may either be planted in patches about borders, or in beds, as fancy shall direct. Of these, the kinds improved by transplanting are, amaranthuses, China asters, columbines, French and African marigolds, fox-gloves, hollyhocks, India pinks, love-lies-bleeding, mallows, mignonette, prince's feather, scabious, stocks, sun-flowers, sweet-williams, wall-flowers, and others. They should be planted out in a showery time, if possible, or otherwise be frequently watered, till they have struck root.

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779. *To preserve Flower Seeds.*—Those who are curious about saving flower-seeds must attend to them in the month of August. Many kinds will begin to ripen apace, and should be carefully sticked and supported, to prevent them from being shaken by high winds, and so partly lost. Others should be defended from much wet; such as asters, marigolds, and generally those of the class Syngenesia; as from the construction of their flowers they are apt to rot, and the seeds to mould, in bad seasons. Whenever they are thought ripe, or indeed any others, in wet weather, they should be removed to an airy shed or loft, gradually dried, and rubbed or beat out at conveniency.

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780. *Easy Method of discovering whether or not Seeds are sufficiently ripe.*—Seeds, when not sufficiently ripe, will swim, but when arrived at full maturity, they will be found uniformly to fall to the bottom; a fact that is said to hold equally true of all seeds, from the cocoa-nut to the orchis.

HINTS TO FARMERS.

781. There are some things that all farmers ought to know.

Sheep put into fresh stubble are apt to be killed by eating too much grain.

A bare pasture enriches not the soil, nor fattens the animals, nor increases the wealth of the owner.

One animal well fed is of more value than two poorly kept.

The better animals can be fed, and the more comfortable they can be kept, the more profitable they are—and all farmers work for profit.

Ground once well plowed is better than thrice poorly.

Bountiful crops are more profitable than poor ones. Make the soil rich, pulverize it well, and keep it clean, and it generally will be productive.

Weeds that grow unmolested around the fences, stumps, and stones, scatter their seeds over the farm, and are very likely to increase.

Cows well fed in winter give more milk in summer. An ox that is in good condition in the spring, will perform more labor, and stand the heat of summer much better than one that is poor.

When you see the fence down, put it up: if it remains until to-morrow, the cattle may get over.

What ought to be done to-day, do it; for to-morrow it may rain.

A strong horse will work all day without food, but keep him at it, and he will not last long.

A rich soil will produce good crops without manure, but keep it at it, and it will tire.

Farmers' sons had better learn to hold the plow, and feed the pigs, than measure tape and count buttons.

Young ladies who have the good fortune to become farmers' wives will find it more profitable to know how to make Johnny-cake, butter, and cheese, than to play on the piano.

All who wish to be rich, must spend less than they earn.

MANAGEMENT OF A HORSE.

782. When a horse is brought in hot, loosen the girth, and allow the saddle to remain on for five minutes. Let him be

walked about in summer, and, in the winter, be put directly in the stable.

A horse should not be permitted to drink cold water, whilst warm; neither should the legs or feet of a horse be washed, until he gets cold.

Horses prefer soft water, and it is best for them. If the water be very hard and brackish, put a small piece of chalk into a pail of water, some time before it is given to the horse.

Fourteen pounds of hay in one day, or one hundred pounds a week, with three feeds of corn a day, are sufficient for a horse that is not over-worked.

In travelling, after the principal feed, let a horse have not less than two hours' rest, that his food may have time to digest.

After a hard day's work, give a horse about two gallons of gruel, made with a quart of oatmeal, half a gallon of ale, half a quartern of brandy, and the proper quantity of water. Wetted bran may be given advantageously to lean horses.

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783. *To dress a Horse.*—On entering the stable, first give him about a gallon of clean water in a clean pail; then shake up the best litter under the manger, sweep out the stall, and clean out the stable.

Whilst the horse is feeding, *dress* him: first, curry him all over with the currycomb, to loosen the dirt and dust on his skin; then remove the dust with a whalebone brush; next, smooth and cleanse the coat with a wisp of straw; and again use the brush and currycomb, to take off what dust may remain; after which, whisk him again with a damp lock of hay; and, finally, rub him down with a woollen or linen cloth.

Then turn round the horse in the stall, brush his head well, and wisp it clean and smooth with a damp lock of hay. Then wipe the dust and filth from the inside of the ears with a damp sponge, and draw the ears through the hands for a few minutes, until they are warm. Wash out the sponge, and with it cleanse the dust, &c., from the eyes; sponge the nostrils, and then rub the whole head with a cloth, in the same manner as the body.

Next, turn the horse round into his proper situation, put on the head-stall, and with a sponge wash the dirt and filth from under the tail. Then, clean and lay the mane with a comb and water-brush, used alternately with both hands; again wipe over the head and body, put on the body-clothes, and fasten them with a surcingle.

Examine the heels, pick out the dirt from the feet, and wash the heels with a brush and plenty of water. If the horse has bad feet, they should be dressed and stuffed.

Lastly, shake hay into the rack; and then the horse will be completely dressed.

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784. *Horse Flies.*—To prevent horses being teased with flies, take two or three small handfuls of walnut leaves, upon which pour two or three quarts of soft cold water; let it infuse one night; pour the whole next morning into a kettle, and let it boil for a quarter of an hour: when cold, it will be ready for use. Nothing more is required than to moisten a sponge with the liquid, and, before the horse goes out of the stable, let those parts which are most irritable be smeared over with the liquor, namely, between and upon the ears, the flank, &c.

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785. *To milk Cows.*—A cow should be milked *clean.* Not a drop, if it can be avoided, should be left in the udder. It has been proved that the half-pint that comes out *last*, has *twelve times*, I think it is, as much butter in it, as the half-pint that comes out *first.* The udder would seem to be a sort of milk-pan, in which the cream is uppermost, and, of course, comes out last, seeing that the outlet is at the bottom. But, besides this, if you do not milk clean, the cow will give less and less milk, and will become dry much sooner than she ought.—*Cobbett.*

RAISING POULTRY.

786. There is scarcely any branch of farming operations more productive than the raising of poultry for market; and yet, with a large majority of our agriculturists, it is considered of but little account. The proximity to a great market, and the facilities for reaching it possessed by many of our farmers in this country, should make the rearing of poultry an object of attention.

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787. *To fatten Poultry.*—Poultry should be fattened in coops, and kept very clean. They should be furnished with gravel, but with no water. Their only food, barley-meal, mixed so thin with water, as to serve them for drink. Their thirst makes them eat more than they would, in order to extract the water

that is among the food. This should not be put in troughs but laid upon a board, which should be clean washed every time fresh food is put upon it. It is foul and heated water which is the sole cause of the pip.

788. *Method of expeditiously fattening Chickens.*—Take, for that purpose, a quantity of rice, and grind or pound it into a fine flour; mix sufficient for present use with milk and a little coarse sugar; stir the whole well over the fire, till it makes a thick paste; and feed the chickens, in the day-time only, by putting as much of it as they can eat, but no more, into the troughs belonging to their coops. It must be eaten while warm; and, if they have also beer to drink, they will soon grow very fat. A mixture of oatmeal and treacle, combined till it crumbles, is said to form a food for chickens, of which they are so fond, and with which they thrive so rapidly, that at the end of two months they become as large as the generality of full-grown fowls fed in the common way.

789. *Method of fattening Geese and Ducks.*—Geese, the more quiet and undisturbed they are kept, the faster and better they fatten. Put young geese into a place that is almost dark; feed them with ground malt mixed with milk, and they will very soon, and at very little expense, be fit to kill.

Another way is cheaper still:—Mix barley-meal, pretty thick, with water, which they must constantly have by them, to eat as they choose; in another part of the shed where they are, keep a pan with some boiled oats and water, for them to resort to when they are inclined to change their food. This variety is agreeable to them, and they thrive apace, being so fattened at less expense than in any other manner.

790. *Cobbett's method of fattening Geese.*—Geese are raised by *grazing:* but, to fat them, something more is required. Corn of some sort, or boiled Swedish turnips, or carrots, or white cabbages, or lettuces, make the best fatting. The modes that are resorted to by the French for fatting geese, are, I hope, such as Englishmen will never think of. He who can deliberately inflict *torture* upon an animal, in order to heighten the pleasure his palate is to receive in eating it, is an abuser of the authority which God has given him, and is, indeed, a tyrant in his heart. Who would think himself safe, if at the *mercy* of such a man?

791. *Swedish method of raising Turkeys.*—As soon as the young turkeys leave the shell, they are made to swallow one or two pepper-corns, and returned to their mother. They are afterwards fed with crumbs of bread and milk, and with common dock-leaves, chopped small, and mixed with fresh buttermilk, and kept in a warm place or sunshine, and guarded from the rain or from running among nettles.

Nothing, however, is more useful for them than the common garden pepper-cress, or cut-leaved cress. They are very fond of it; and, supplied with as much of it as they will eat, they will not be delicate in their other food.

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792. *To fatten Turkeys as they do in Norfolk.*—The quality and size of the Norfolk turkeys are superior to those of any other part of England. They are fed almost entirely with buckwheat; and give them with it boiled oats, boiled malt, or boiled barley, and sometimes, for change, even boiled wheat and water.

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793. *To fatten Ducks.*—Feed them with the same food as the turkeys or geese, and let them have a pan of water to dabble in.

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794. *To make Hens lay perpetually.*—Hens will lay perpetually, if treated in the following manner:—Keep no roosters (cocks): give the hens fresh meat, chopped up like sausage-meat, once a day; a very small portion, say half an ounce a day to each hen, during the winter, or from the time insects disappear in the fall till they appear again in the spring. Never allow any eggs to remain in the nest for what are called "nest eggs." When the roosters do not run with the hens, and no nest eggs are left in the nest, the hens will not cease laying after the production of twelve or fifteen eggs, as they always do when roosters and nest eggs are allowed; but continue laying perpetually. The only reason why hens do not lay in winter as freely as in summer, is the want of animal food, which they get in summer in abundance, in the form of insects.

HINTS FOR THE PRESERVATION OF HUMAN LIFE FROM FIRE.

795. *Cautions.*—Sweep chimneys regularly; sweep frequently the lower part of the chimney within reach; the kitchen chimney should be swept once a month.

796. *Fires in Chimneys.*—When a chimney or flue is on fire, throw into the fire-place handfuls of flour of sulphur, which will destroy the flame. Or, apply a wet blanket, or old carpet, to the throat of the chimney, or over the front of the fire-place. A chimney-board, or register-flap, will answer the same purpose, by stopping the draught of air from below.

Beware of lights near combustibles; of children near fires and lights; and do not trust them with candles. Do not leave clothes to dry by the fire unwatched, either day or night; do not leave the poker in the fire; see that all be safe before you retire to rest.

797. *Persons in Danger.*—When *a fire* happens, put it out in its earliest stage; if suffered to extend itself, give the alarm. Beware of opening doors, &c., to increase the fire by fresh air. Muster the whole family, see that none are missing. First save lives, then property. Think of the ways of escape; by the stairs, if no better way—creep along a room where the fire is, and creep down stairs backwards on hands and knees—(heated air ascends); come down stairs with a pillow before your face, and a wet blanket round the body, and hold your breath; or try the roof of the adjoining house. Throw out of the window a feather bed, to leap upon in the last extremity—fasten fire-escapes to the bed-posts first—send children down by the sack fastened to a rope, taking care of the iron spikes and area; then lower yourselves.

798. *Means of Extinction.*—The safety of the inmates being ascertained, the first object at a fire should be the exclusion of all fresh and the confinement of all burnt air—*suffocate* the flames—and remember that burnt air is as great, if not a greater enemy to fire than water. For both purposes, of excluding the one air, and confining the other, all openings should be kept as carefully closed as possible. The prevailing practice of *breaking windows* is peculiarly mischievous. The only excuse for this is the admission of water; but if the firemen were provided

with self supporting ladders, (that need not lean against the wall,) they might direct the water-hose through a single broken pane, with ten times more accuracy than by their random squirting from the street. Water should be made to beat out the fire by its impetus; sprinkling is useless.

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799. *Neighbors and Spectators.*—When a fire happens, let every respectabte neighbor attend. Send instantly for engines, both of the parish and of the insurance companies, and the parish and other ladder and fire-escapes. Look for the nearest fire-plug—send instantly for policemen. and see they attend, and are active.

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800. *Method of escape from Fire.*—The following simple machine ought always to be kept in an upper apartment. It is nothing more than a shilling or eighteen-penny rope, one end of which should always be made fast to something in the chamber, and at the other end should be a noose to let down children or infirm persons, in case of fire. Along the rope there should be several knots, to serve as resting places for the hands and feet of the person who drops down by it. No family occupying high houses should ever be without a contrivance of this kind.

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801. *To make Water more efficacious in extinguishing Fires.*—Throw into a pump, which contains fifty or sixty buckets of water, eight or ten pounds of salt or pearlashes, and the water thus impregnated will wonderfully accelerate the extinction of the most furious conflagration. Muddy water is better than clear, and *can* be obtained when salt and ashes cannot.

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802. *To extinguish Fires speedily.*—Much mischief arises from want of a little presence of mind on these alarming occasions. A small quantity of water, well and immediately applied, will frequently obviate great danger. The moment an alarm of fire is given, wet some blankets well in a bucket of water, and spread them upon the floor of the room where the fire is, and afterwards beat out the other flames with a blanket thus wet. Two or three buckets of water thus used early, will answer better than hundreds applied at a later period. Linen thus wet will be useful, but will not answer so well as woollen.

803. *To escape from or go into a House on fire.*—Creep or crawl with your face near the ground, and, although the room be full of smoke to suffocation, yet near the floor the air is pure, and may be breathed with safety. The best escape from upper windows is by a knotted rope; but, if a leap is unavoidable, then the bed should be thrown out first, or beds prepared for the purpose.

804. *Hints respecting Women's and Children's Clothes catching fire.*—The woman and children in every family should be particularly told and shown, that flame always tends upwards; and, consequently, that as long as they continue erect, or in an upright posture, while their clothes are burning, the fire generally beginning at the lower part of the dress, the flames meeting additional fuel, as they rise, become more powerful in proportion; whereby the neck and head, being more exposed than other parts to the intense and concentrated heat, must necessarily be most injured. In a case of this kind, where the sufferer happens to be alone, and cannot extinguish the flames by *instantly throwing the clothes over the head, and rolling or lying upon them*, she may still avoid great agony, and save her life, *by throwing herself at full-length on the floor, and rolling herself thereon.* This method may not extinguish the flame, but, to a certainty, will retard its progress, prevent fatal injury to the neck and head, and afford opportunity for assistance; and it may be more practicable than the other, to the aged and infirm. A carpet or hearth-rug instantly lapped round the head and body, is almost a certain preventive of danger.

805. *Method of rendering all sorts of Paper, Linen, and Cotton, less combustible.*—This desirable object may be, in some degree, effected, by immersing these combustible materials in a strong solution of alum-water; and, after drying them, repeating this immersion, if necessary. Thus, neither the color nor the quality of the paper will be in the least affected; on the contrary, both will be improved: and the result of the experiment may be ascertained, by holding a slip of paper, so prepared, over a candle.

806. *To extricate Horses from fire.*—If the harness be thrown over a draught, or the saddle placed on the back of a saddle horse, they may be led out of the stable as easily as on common

occasions. Should there be time to substitute the bridle for the halter, the difficulty towards saving them will be still further diminished.

807. *Method of renaering assistance to persons in danger of Drowning.*—This desirable object appears attainable by the proper use of a man's hat and pocket-handkerchief, which (being all the apparatus necessary) is to be used thus:—Spread the handkerchief on the ground, and place a hat, with the brim downwards, on the middle of the handkerchief; and then tie the handkerchief round the hat as you would tie up a bundle, keeping the knots as near the centre of the crown as may be. Now, by seizing the knots in one hand, and keeping the opening of the hat upwards, a person, without knowing how to swim, may fearlessly plunge into the water with what may be necessary to save the life of a fellow-creature.

If a person should fall out of a boat, or the boat upset, by going foul of a cable, &c., or should he fall off the quays, or indeed fall into any water from which he could not extricate himself, but must wait some little time for assistance—had he presence of mind enough to whip off his hat, and hold it by the brim, placing his fingers withinside the crown, and hold it so, (top downwards), he would be able, by this method, to keep his mouth well above water till assistance should reach him. It often happens that danger is descried long before we are involved in the peril, and time enough to prepare the above method; and a courageous person would, in seven instances out of ten, apply to them with success; and travellers, in fording rivers at unknown fords, or where shallows are deceitful, might make use of these methods with advantage.

808. *To prevent excessive Thirst, in cases of emergency at Sea, in the summer-time.*—When thirst is excessive, as is often the case in summer-time, during long voyages, avoid, *if possible, even in times of the greatest necessity*, the drinking of salt water to allay the thirst; but rather keep thinly clad, and frequently dip in the sea, which will appease both hunger and thirst for a long time, and prevent the disagreeable sensation of swallowing salt water.

809. *Best mode of avoiding the fatal Accidents of Open Carriages.*—Jumping out is particularly dangerous, (the motion

of the gig communicating a different one to the one you give yourself by jumping), which tends very much to throw you on your side or head. Many suppose it very easy to jump a little forward, and alight safe: they will not find it so on trial. The method of getting out behind the carriage, is the most safe of any, having often tried it when the horse has been going very fast. Perhaps it is best to fix yourself firm, and remain in the carriage.

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810. *Recovery from Suffocation, &c.*—There are many occasions of danger, on which a person who can hold breath for a minute or two, may save the life of another. The best preparation for rendering such assistance is, by breathing deep, hard, and quick, (as a person would do after running,) and ceasing with his lungs full of air; he will then find himself able to hold his breath more than twice as long as he would without such preparation.

If in a brewer's fermenting vat, or an opened cess-pool, one man sinks senseless and helpless, from breathing the foul air, another man of cool mind would, by the above preparation, have abundant time, in most cases, to descend by the ladder or bucket, and rescue the sufferer, without any risk to himself. In entering a room on fire, a knowledge of this fact may be useful.

The following precautions should also be regarded. Avoid all unnecessary exertion; go coolly and quietly to the spot where help is required; do no more than is needful, leaving the rest to be done by those in a safe atmosphere.

In case of *choke-damp*, as in a brewer's vat, hold the head as high as may be: in case of a fire in the room, keep the head as low as possible.

If a rope be at hand, fasten it to the person who is *giving* help, that he may be succored, if he venture too far. Many deaths happen in succession in cess-pools, and similar cases, for want of this precaution.

It is hardly needful to say, do not try to breathe the air of the place where help is required. Yet many persons fail, in consequence of forgetting this precaution. If the temptation to breathe be at all given way to, the *necessity* increases, and the helper himself is greatly endangered. Resist the tendency, and retreat in time.

Be careful to commence giving aid with the lungs *full* of air,

not empty; for the preparation consists chiefly in laying up for the time, in the lungs, a store of that pure air which is so essential to life.

811. *Thunder Storms.*—The safest situation during a thunder-storm is the cellar; for when a person is below the surface of the earth, the lightning must strike it before it can reach him, and will probably be expended on it. Dr. Franklin advises persons apprehensive of lightning to sit in the middle of a room, not under a metal lustre, or any other conductor, and to place their feet upon another chair. It will be still safer, he adds, to lay two or three beds or mattresses in the middle of the room, and to place the chairs upon them. A hammock suspended with silk cords would be an improvement on this apparatus. Persons out of doors should avoid trees, &c.

The distance of a thunder-storm and its consequent danger can easily be estimated. As light travels at the rate of 192,000 miles in a second of time, its effects may be considered as instantaneous within any moderate distance. Sound is transmitted at the rate of only 1142 feet in a second. By observing, therefore, the time which intervenes between the flash of lightning and the thunder which accompanies it, a very near calculation may be made of its distance.

812. *Stroke of Lightning.*—Throw cold water upon them as soon as possible. It will often restore persons struck by lightning when apparently insensible, or even dead.

813. *A few Concise Rules for the Recovery of Persons apparently Drowned.*—The body on being taken out of the water, should be conveyed to the nearest house, *in the gentlest manner possible;* the wet clothes must be removed, and the body well dried with a towel; it must then be placed on a mattress, laid on a table of proper height and length. Care must always be taken to lay the head considerably higher than the extremities, and to place the body on the right side. The lungs should be inflated with a pair of bellows, not forcibly, but gradually, so as to imitate the action of respiration.

Do not place the body in a high degree of heat; (below 98 degrees of Fahrenheit's scale is the best temperature,) clear the apartment of all supernumerary persons, and let the windows and doors be open, to admit a free circulation of air.

Apply friction, *after the lungs have been expanded*, with the hand only, or with a little oil on the fingers.

No injections are necessary, nor emetics, except in particular cases: bleedng is also a doubtful remedy: electricity, *in judicious hands*, may prove highly beneficial.

Let no rolling of the body be used with a view of emptying it of water; there is no water present, or scarcely any. The heart being overloaded with blood, may be burst by this injudicious proceeding, and more mischief has been done by tossing and rolling the body, than by any other erroneous treatment. Hot water, in bottles, may be applied to the feet and ankles, as soon as respiration commences: when the blood begins to circulate, heat may be gradually increased, and the patient removed to a warm bed, where he must be carefully watched till the action of the heart be completely restored.

The following way is commended by those who have seen it tried: 1. Lose no time. 2. Handle the body gently. 3. Carry the body with the head gently raised, and never hold it up by the feet. 4. Send for medical assistance immediately, and in the mean time act as follows: 1. Strip the body, rub it dry; then rub it in hot blankets, and place it in a warm bed in a warm room. 2. Cleanse away the froth and mucus from the nose and mouth. 3. Apply warm bricks, bottles, bags of sand, &c., to the arm-pits, between the thighs and the soles of the feet. 4. Rub the surface of the body with the hands enclosed in warm dry worsted socks. 5. If possible, put the body into a warm bath. 6. To restore breathing, put the pipe of a common bellows in one nostril, carefully closing the other and the mouth; at the same time drawing downward, and pushing gently backward, the upper part of the windpipe, to allow a more free admission of air; blow the bellows gently, in order to inflate the lungs, till the breast be raised a little; then set the mouth and nostrils free, and press gently on the chest; repeat this until signs of life appear. When the patient revives, apply smelling-salts to the nose, give warm wine or brandy and water. *Cautions.*—1. Never rub the body with salt or spirits. 2. Never roll the body on casks. 3. Continue the remedies for twelve hours without ceasing.

PART V.

MISTRESS—MOTHER—NURSE—AND MAID.

In which are set forth the prominent Duties of each department, and the most important Rules for the guidance and care of the Household.

OF THE TABLE

814. The taste and management of the mistress are always displayed in the general conduct of the table; for, though that department of the household be not always under her direction, it is always under her eye. Its management involves judgment in expenditure, respectability of appearance, and the comfort of her husband as well as of those who partake of their hospitality. Inattention to it is always inexcusable, and should be avoided for the lady's own sake, as it occasions a disagreeable degree of bustle, and evident annoyance to herself, which is never observable in a well-regulated establishment.

Perhaps there are few occasions on which the respectability of a man is more immediately felt, than the style of dinner to which he may accidentally bring home a visitor. Every one ought to live according to his circumstances, and the meal of the tradesman ought not to emulate the entertainments of the higher classes; but, if merely two or three dishes be well served, with the proper accompaniments, the table-linen clean, the small sideboard neatly laid, and all that is necessary be at hand, the expectation of both the husband and friend will be gratified, because no interruption of the domestic arrangements will disturb their social intercourse.

Should there be only a joint and a pudding, they should

always be served up separately; and the dishes, however small the party, should always form two courses. Thus, in the old fashioned style of "fish, soup, and a roast," the soup and fish are placed at the top and bottom of the table, removed by the joint with vegetables and pastry; or, should the company consist of eight or ten, a couple or more of side-dishes in the first course, with game and a pudding in the second, accompanied by confectionary, are quite sufficient.

In most of the books which treat of cookery, various bills of fare are given, which are never exactly followed. The mistress should give a moderate number of those dishes which are most in season. The cuts which are inserted in some of those lists, put the soup in the middle of the table—where it should never be placed. For a small party, a single lamp in the centre is sufficient; but, for a larger number, the room should be lighted with lamps hung over the table, and the centre occupied by a *plateau* of glass or plate, ornamented with flowers or figures.

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815. *Carefulness.*—A proper quantity of household articles should always be allowed for daily use. Each should also be kept in its proper place, and applied to its proper use. Let all repairs be done as soon as wanted, remembering the old adage of "a stitch in time;" and never, if possible, defer any necessary household concern a moment beyond the time when it ought to be attended to.

In the purchase of glass and crockery-ware, either the most customary patterns should be chosen, in order to secure their being easily matched, when broken; or, if a scarce design be adopted, an extra quantity should be bought, to guard against the annoyance of the set being spoiled by breakage—which, in the course of time, must be expected to happen. There should likewise be plenty of common dishes, that the table-set may not be used for putting away cold meat, &c.

The cook should be encouraged to be careful of coals and cinders: for the latter there is a new contrivance for sifting, without dispersing the dust, by means of a covered tin bucket.

Small coal, wetted, makes the strongest fire for the back of the grate, but must remain untouched till it cakes. Cinders, lightly wetted, give a great degree of heat, and are better than coal, for furnaces, ironing-stoves, and ovens.

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816. *Attention to little things.*—By attention to *little things*, the neat appearance of a house may be secured, and time and

labor saved. For instance, when you are sewing, carefully deposit your bits of thread, &c., in a little basket or box, instead of throwing them on the floor. And again: set your chairs out a little from the wall, instead of putting them close to it, which would not only rub the paint from the chairs, but would soon deface the beauty of the wall-paper. These appear like trifling things—but nothing is too trifling to demand our attention, when we are endeavoring to fulfil the duties of our sphere.

817. *Cheerfulness.*—Does it seem singular that *cheerfulness* is placed among the requisites for good house-keeping? But it is of far more importance than you would, at first view, imagine. What matters it to a brother or husband, if the house be ever so neat, or the meals punctually and well prepared, if the mistress of it is fretful and fault-finding—ever discontented and complaining. The *outside* of such a house is ever the most attractive to him, and any and *every* excuse will be made for absenting himself; and the plea of business or engagements will be made to her who is doomed to pass her hours needlessly in solitude.

818. *Of Economy in Expenditure.*—Economy should be the first point in all families, whatever be their circumstances. A prudent housekeeper will regulate the ordinary expenses of a family, according to the annual sum allowed for housekeeping. By this means, the provision will be uniformly good, and it will not be requisite to practise meanness on many occasions, for the sake of meeting extra expense on one.

The best check upon outrunning an income is to pay bills weekly, for you may then retrench in time. This practice is likewise a salutary check upon the correctness of the accounts themselves.

To young beginners in housekeeping, the following brief *hints on domestic economy*, in the management of a moderate income, may perhaps not prove unacceptable.

A bill of parcels and receipt should be required, even if the money be paid at the time of purchase; and, to avoid mistakes, let the goods be compared with these when brought home; or, if paid or at future periods, a bill should be sent with the article, and regularly filed on separate files for each tradesman.

An inventory of furniture, linen, and china should be kept,

and the things examined by it twice a-year, or oftener if there be a change of servants; the articles used by servants should be intrusted to their care, with a list, as is done with the plate. In articles not in common use, such as spare bedding, tickets of parchment, numbered and specifying to what they belong, should be sewed on each; and minor articles in daily use, such as household cloths and kitchen requisites, should be occasionally looked to.

819. *Books and Accounts.*—Housekeeping books, with printed forms for the various heads of expenditure, and the several articles, are used in many families; but accounts may be kept with as much certainty in plain books.

820. *Servants.*—In the *hiring of Servants*, it is an excellent plan to agree to increase their wages annually to a fixed sum, where it should stop, and to recommend that a portion of it should be regularly placed in a savings-bank. An incentive will thus be offered to good conduct; and when the hoard saved up amounts to any considerable sum, the possessor will generally feel more inclined to enlarge than to expend it.

A kindly feeling of indulgence on the part of the mistress towards her servants, in the matter of petty faults, coupled with good-natured attention to their daily comforts, and occasional permission to visit and receive a few of their near friends, would go far to create a cordial degree of attachment, which must be ever desirable to a respectable family, and cheaply purchased by such consideration. Mildness of language will generally be met by respectful language on the part of a servant, and of itself will produce a saving of temper at least to the master or mistress. Due praise will mostly be found a powerful stimulus to good, and in some measure a preventive to bad conduct, on the part of a servant.

Do not speak harshly or imperatively to servants, or tell them of their faults in the presence of strangers or visitors; but take the earliest opportunity of reproving them after your company have left.

821. *Store-room.*—A store-room is essential for the custody of articles in constant use, as well as for others which are only occasionally called for. These should be at hand when wanted, each in separate drawers, or on shelves and pegs, all under the

lock and key of the mistress, and never be given out to the servants but under her inspection.

Pickles and preserves, prepared and purchased sauces, and all sorts of groceries, should be there stored; the spices pounded and corked up in small bottles, sugar broken, and everything in readiness for use. Lemon-peel, thyme, parsley, and all sorts of sweet herbs, should be dried and grated for use in seasons of plenty; the tops of tongues saved, and dried, for grating into omelets, &c.; and care taken that nothing be wasted that can be turned to good account.

Coarse nets suspended in the store-room are very useful in preserving the finer kinds of fruit, lemons, &c., which are spoiled if allowed to touch. When *lemons* and *oranges* are cheap, a proper quantity should be bought and prepared, both for preserving the juice, and keeping the peel for sweetmeats and grating, especially by those who live in the country, where they cannot always be had; and they are perpetually wanted in cookery.

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822. *Sugar.*—The lowest-priced and coarsest sugar is not the cheapest in the end, as it is heavy, dirty, and of a very inferior degree of sweetness; that which is most refined is the sweetest: the best has a bright and gravelly appearance. East India sugars appear finer in proportion to the price; but they do not contain so much sweetness as the other kinds. Loaf-sugars should be chosen as fine and as close in texture as possible, except they are for preserving, when the coarse, strong, open kind is preferable.

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823. *Pepper.*—The finest Cayenne pepper consists of powdered bird-pepper; but, as this is of a bad color, it is often adulterated to heighten the color. English chilies, dried and pounded, make good pepper.

White pepper is inferior to black, although the former is sold at the highest price. White pepper is merely black pepper deprived of its outer coating, which has a stimulating property; so that white pepper is much weaker than black.

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824. *Cinnamon*, when good, is rather thin and pliable, and about the substance of thick paper, of yellowish-brown color, sweetish taste, and pleasant odor: that which is hard, thick, and dark-colored, should be rejected.

825. *Articles in Season.*—Some weak-minded persons affect to despise articles of food when they are plentiful and cheap, not knowing that such is the time when the articles are in the greatest perfection.

Young and inexperienced housekeepers sometimes incur unnecessary expense by ordering articles of food when they are scarce, dear, and hardly come into season. This can only be prevented by attention to the seasons of different articles.

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826. *Every Family to make their own Sweet Oil.*—With a small hand-mill, every family might make their own sweet oil. This may easily be done, by grinding or beating the seeds of white poppies into a paste, then boil it in water, and skim off the oil as it rises; one bushel of seed weighs fifty pounds, and produces two gallons of oil. Of the sweet olive oil sold, one-half is oil of poppies. The poppies will grow in any garden; it is the large-head white poppy, sold by apothecaries. Large fields are sown with poppies in France and Flanders, for the purpose of expressing oil from their seed for food. When the seed is taken out, the poppy head when dried is boiled to an extract, which is sold at two shillings per ounce, and it is to be preferred to opium, which now sells very high. Large fortunes may be acquired by the cultivation of poppies. Women and children could attend to the cultivation of any quantity required for their own use, in making oil, and it would be found a profitable branch of industry, when engaged in on a large scale.

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827. *Candles and Lamps.*—In purchasing wax, spermaceti, or composition candles for *company*, there will be a saving by proportioning the length and size of the lights to the probable duration of the party. Mixed wax and spermaceti make the best candles, of which a long *four* (that is, four to the pound,) will last ten hours; a short *six* will burn six hours; a *three*, twelve hours.

A moderate-sized French table-lamp, will consume a quarter of a pint of oil in twelve hours and a half.

A common japanned kitchen-lamp, with one burner, will consume one-eighth of a pint of oil in nine hours.

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828. *Neats'-foot Oil.*—Boil the feet for several hours, as for making stock for jelly; skim off the oily matter from time to

time as it rises, and, when it ceases to come up, pour off the water; next day, take off the cake of fat and oil which will be found on the top; boil it and the oil before obtained, together with a little cold water; let it cool; pour off the water, and bottle the oil for use. This oil being perfectly pure, and free from smell, may be used with the French lights in a sick-room.

829. *Soap.*—Soap, as well as candles, is improved by keeping. Buy your store for the winter as early as September, and cut the large bars of soap into pieces, to dry. It goes farther, and is better.

830. *Coals.*—Lay in your stock of coal and wood, during summer, when fuel of all kinds is cheapest.

831. *Good method of making Fires.*—In managing your fires during the day, first lay on a shovelful of the dust and ashes from under the grate, then a few coals, then more ashes, and afterwards a few more coals, and thus proceed till your grate is properly filled, placing a few round coals in front. You will find that the ashes retain the heat better than coals alone; you will have less smoke, a pleasant fire, and a very little waste left at night.

832. *Kitchen-Paper.*—Whited-brown and common writing is much used: it should be bought by the ream or half-ream, which will be much cheaper than by the quire. White paper only should be used for singeing, and for covering meat, pastry, &c.

833. *Economy in Tinder.*—The very high price of paper, at present, renders the saving of even the smallest quantity of linen or cotton rags of consequence, as they sell very dear. Trifling as it may be thought, yet it will be found that a considerable quantity of rags may be saved in a family, by using as tinder for lighting matches, the contents of the common snuffers, collected in the course of the evening.

834. *To prevent Accidents, from leaving a poker in the fire.*—The following invention is equally simple and secure:—Immediately above that square part of the poker, by blacksmiths

called "the bit," let a small cross of iron, about an inch and a half each way, be welded in.

The good consequences of this simple contrivance will be—

1st. If the poker, by the fire giving way, should slip out, it will probably catch on the edge of the fender.

2d. If it should not, it cannot injure the hearth or carpet, as the hot part of the poker will be borne up some inches.

3d. The poker cannot be run into the fire further than the bit, which, in regard to a polished poker, is also of some consequence.

ON THE MANAGEMENT OF INFANTS, YOUNG CHILDREN, AND THE SICK.

835. In a previous work—"Mrs. Hale's New Cook Book,"—I gave many receipts for preparing food for invalids and children; but something more is needed. Young mothers and nurses, who are often inexperienced, will, I am sure, thank me for taking pains to procure, from the most eminent authorities, the best directions and recipes to aid them in the discharge of their arduous and most important duties. The preservation of life, and the formation of the physical constitution, as well as the moral development of the young beings committed by Divine Providence to the especial care of woman, render it one of the best accomplishments of our sex, to learn all we can respecting the high vocation whereunto we are called, viz., that of conservators of humanity.

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836. *Of young Infants.*—Immediately on the birth of the child, it should be received into soft fine flannel, sufficient completely to envelop or wrap round the body, in which, with the mouth and nose scarcely exposed, it should repose at least an hour. The child may then be washed with *tepid* water, tenderly and cautiously, yet speedily made dry with soft linen cloth. Afterwards let it be expeditiously dressed, and put into a warm bed, and, during the first week or fortnight, exposed as little as possible to cold air: how long this caution may be necessary, will depend on the season of the year, or the temperature of the atmosphere. By strictly adhering to this mode of managing a new-born infant, it will not suffer from catarrh, cough, difficulty of breathing, diarrhea, sore eyes, or stoppage in the head.

Children are frequently placed under the care of a nurse, who, from her experience, is supposed qualified for the important trust; but it often happens, either from her obstinacy or self-importance, that the most judicious plan of treatment recommended by the attending physician, is defeated.

At this period the mother is called on, by religious and moral obligation, as well as by the ties of natural affection, to suckle her infant: no doubt could be entertained of her immediate assent to so powerful an impulse, if uninfluenced by her friends or relatives. It cannot be denied, that she may be disqualified for the office by various maladies, by an incipient phthisis, by a scorbutic or scrofulous taint, by hysterical or nervous affections, &c. However, the fitness or unfitness of the mother for this endearing office, should be determined by the attending physician. There are many instances recorded of women who had been extremely delicate and sickly previous to their first confinement, becoming afterwards healthy and robust. On the contrary, there are several histories of other women, who previously had enjoyed good health, suffering from counteracting the regular process of nature. The flow of the milk being checked, undue determinations have taken place to the chest or head, and in some cases proved fatal.

In the bowels of children at the time of their birth, there is an accumulation of what is called "the meconium." For whatever purpose it was intended before the birth of the child, it would become injurious were it afterwards suffered to remain. Nature has provided the means for its removal, by giving to the new milk an aperient quality. Therefore it is advisable to wait, even to the third day, for the appearance of the milk, rather than attempt to remove the meconium by castor oil, or any other mild aperient medicine. The coats of the child's stomach and bowels are so extremely tender and irritable, that the mildest purgative will give pain, and disorder the health of the infant. By waiting for the milk, relief is obtained by the means nature has provided, without the slightest inconvenience.

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837. *Clothing.*—The clothing for children cannot be too simple: it should be so formed as to admit of being easily and quickly changed, free from all bandages or pins, and secured only by tape. Shoes or stockings may be dispensed with, until the child begins to use its legs, as they keep the feet wet and

unpleasant, unless changed every hour. The child left to itself, will soon begin to enjoy the use and freedom of its limbs.

838. *Food.*—The proper food for children is a subject of more importance. That which nature has provided is the milk of its parent; but, when this is lacking, a preparation formed of cow's milk and water, with a little loaf sugar, in the following proportions, supplies the desideratum:—Take of fresh cow's milk, one table-spoonful; hot water, two table-spoonfuls; loaf sugar, as much as may be agreeable. Such nourishment will alone be sufficient for its support, until the end of the first three months. At this period, it may require a small portion of light animal food, of which, how to select the most nutritious, to regulate the quantity, and to administer it, after proper intervals, must depend on the experience of the nurse. Experience is often superseded by convenience: if the child cries, the nurse attributes it to a want of food, and, by her agency, it is fed almost every hour, both night and day. It is seldom that a child cries from abstinence, if it be healthy and free from pain. In the infantile state, the powers of the digestive organs are much weaker than at a more advanced period of life; and therefore, although the food is more simple, it requires an interval of some hours to convert it into chyle: if this process be interrupted by frequent feeding, the chyle will be crude, and pass off without affording due nourishment to the child. Sickness in children arises from the quality or quantity of their food, unduly administered. The food for children should be light and simple—gruel alone, or mixed with cow's milk; mutton broth, or beef tea; stale bread, rusks, or biscuits, boiled in water to a proper consistence, and a little sugar added. The great mortality of children in large towns, may be attributed to the poverty of their parents, who cannot purchase the necessary food or clothing, nor find leisure to attend to cleanliness, air, and exercise, so indispensably necessary to the well-being of their offspring. In the wealthy ranks of society, these means are easily obtained; and in the management of their children, we have only to dread the abuse of these advantages. Happy would it be both for rich and poor, if the superfluities of the one could be transferred for the benefit of the other.

When six months old, a child may be fed every four hours, when awake. Nothing can be more injurious to health than too frequent or irregular meals. Children, if left to themselves,

soon acquire the habit of passing through the night without being fed.

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839. *Weaning* of children should not take place under six months, if the mother be in health, nor be deferred beyond nine months. It cannot be too frequently impressed on the mind of the parent, that the future health and strength of her child depend on a due supply of the food which nature has provided. Regarding her own health, the chances are that it will be improved—at all events, it is incumbent on her to make the experiment; if her strength falls off, she may at any time retire from the effort, and engage a wet-nurse.

This *foster-parent* should not be more than thirty years of age, nor should her milk be more than three months old. She should be in health, free from scorbutic or scrofulous taints, from cutaneous scurf, or eruptions, perfectly clean in her person, and extremely neat in her management of whatever concerns the child. She must be sober and temperate: her diet should consist of a due proportion of bread, fresh meat, and vegetables; her drink, tea, chocolate, and milk and water; but on no consideration either wine or any other spirituous liquors. These, if drank by the nurse, will prove injurious to the child.

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840. *Proper Medicines for Infants.*—Nature has not only provided food for infants, but likewise given to them a constitution capable of correcting those slight deviations from health, to which alone they are liable when properly nursed. This has induced many to assert that medicines are not required in the nursery: perhaps the assertion might be correct, if children were suffered to remain in a state of nature: the further they are removed from it, the evils they have to contend with bear a proportionate increase. As most of their complaints arise from a want of attention to their food, to air, and exercise, by a prompt and skilful use of medicine, these complaints may be removed; therefore, it is not the use but the abuse of medicine that should be avoided. If a child be tormented by a pin running into the flesh, no one would contend against the removal of the pin.

The diseases to which children are liable, are sore eyes, sore ears, sore head, scald head, sickness and vomiting, thrush, red

gum, yellow gum, pain in the bowels, diarrhea, dentition, chilblains, rickets, worms, scrofula, catarrh, cough, measles, &c.

841. *Sore Eyes* frequently occur on the second or third day after the birth, occasioned by too early an exposure of the child to a cold atmosphere: the eyelids swell, become closed, and discharge a purulent matter. It may be relieved by fomenting the eyelids with equal parts of lime water and elder-flower water. Dip some fine old linen cloth into this mixture, moderately warmed, and apply it to the eyelids. This is a mild astringent application: if the swellings should not be reduced by it, the following, which is more astringent, will probably succeed: Take of white vitriol, two grains; rose-water, two ounces; mix them together. Should it be necessary, the quantity of white vitriol may be increased.

842. *Sore Ears.*—Excoriations of the skin frequently happen either behind the ears, in the folds of the skin, on the neck, in the groins, or wherever the folds of the skin, come in contact. Wash the skin morning and evening with cold water, make it perfectly dry with a fine linen cloth, then shake on lightly the following powder: Take white ceruse, one part; wheaten starch, in flour, three parts; mix them together. Or, take Goulard's extract, French brandy, of each, one drachm; rose-water, four ounces. Mix them together, and apply it with soft linen cloth to the excoriations of the skin.

The following liniment may be relied on: Take acetate of lead, one scruple; rose-water, half an ounce; melted beef marrow, one ounce. Rub the acetate of lead in the rose-water, until they are intimately mixed, then melt the marrow over a gentle heat; afterwards pour the mixture upon the marrow by little and little, taking care that each addition be incorporated with the marrow, so as to form an uniform mass. This may be applied with a camels'-hair pencil.

843. *Sore Head.*—This complaint appears first on the forehead, in large white spots or scabs, which, if neglected, soon spread over the whole surface of the head. It is sometimes dry, at others moist, with a thin, watery discharge. It is named the crusta lactea, or milky crust. There are two methods of treating it. Nurses encourage the discharge by applying cabbage leaves, oil-cloth, &c.; this is by no means necessary; it

makes the head offensive, and the appearance of the child disgusting. It is much better to cure it as soon as possible, by washing the scabs night and morning with equal parts of brandy and water; then lay on the following ointment: Take, olive oil, five drachms; white wax, two drachms; calcined zinc, one drachm. Melt the oil and wax together, then add the zinc by degrees, and keep stirring it until they are intimately mixed.

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844. *Scald Head* is totally unlike the preceding disease: brown-colored scabs appear on the crown of the head, which discharge a glutinous matter, and unite the hairs, so as to prevent their being separated with a comb: these scabs continue to spread until they occupy the whole of the scalp.

Keep the hair cut as close as possible, wash the head with a strong solution of soap in water, night and morning; as soon as it can be done, instead of cutting the hair with scissors, let it be shaved close once a day.

Every one has a remedy for this complaint; perhaps the following ointment will be found one of the most effective: Take Barbadoes tar, one ounce; the dust of the lycoperdon, or puff fungus, one drachm. Mix them well together, and rub in a part of it to the roots of the hair, after washing the head with the soap and water. By steadily persevering in these means, and giving an occasional purge, the cure will soon be accomplished.

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845. *Sickness and Vomiting.*—Soon after the birth, children are frequently annoyed by these symptoms: they are occasioned by the indiscreet conduct of the nurses, who are apt to give either improper food or medicine. At this early period, as before remarked, the stomach is incapable of digesting any other food than the milk of its mother; consequently, whatever is forced into it, remains there undigested, until, by a convulsive effort, it is thrown off by vomiting. So long as it remains in the stomach, the child is restless, and in other respects indisposed. It may be relieved by a tea-spoonful of castor-oil, to be repeated, until one or two motions are occasioned.

Children who are dry nursed are most subject to sickness and vomiting; the natural remedy is the breast of a healthy woman. Without this relief, gripings and diarrhea frequently come on and prove fatal.

Children so circumstanced, may be relieved by the following emetic:

Take of ipecacuanha, two drachms; boiling water, four ounces. Let them stand together until the water grows cold, then strain off the liquor. To one ounce of the liquor, add eight drops of antimonial wine. Dose, two tea-spoonfuls every half hour, until it excites vomiting.

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846. *The Thrush*, or sore mouth, is a complaint very painful, and, if neglected, fatal to children. When it first comes on, it resembles small pieces of curd lying loose upon the tongue; it gradually spreads itself over the inside of the mouth, but afterwards rapidly advances to the throat, stomach, and bowels. Therefore, when the white specks appear, proper means should be instantly employed to remove them, or to suspend their progress. If the child be costive, give the following aperient:

Take of calcined magnesia, two scruples; common mint water, two ounces; mix them together. The dose, a dessert-spoonful every half hour, until it operates. Or, take of manna, one ounce; senna leaves, one drachm; common mint-water, four ounces. Boil them together, until the manna be dissolved, then strain off the liquor. Dose, two drachms every half hour, until two or more motions are occasioned.

For cleaning the mouth, take equal parts of borax and white sugar; rub them together into a fine powder. Of this put a small quantity into the child's mouth, which will be distributed to every part by the motion of its tongue. Repeat this application three or four times a day: if used early, it will keep the mouth free from white specks, and remove the complaint in a few days.

If, on the contrary, it should be neglected, and suffered to extend to the stomach and bowels, gentle emetics ought to be employed, such as the following antimonial emetic: Take of antimonial wine, forty drops; mint-water, two ounces. Mix them together. Dose, a dessert-spoonful every half hour, until it excites vomiting.

This disease rarely occurs in children, who take no other food but the milk of the mother, or foster-parent. It is so far contagious, that if a healthy child be put to the breast of a woman, who is suckling another child, having the thrush, it will contract this complaint.

847. *Red Gum* requires no farther attention than keeping the bowels gently open, and avoiding an exposure to cold air. It is symptomatic of healthy action, and ought not to be checked.

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848. *Infantile Jaundice.*—The skin of new-born infants is sometimes tinged with bile, and gives the appearance of jaundice; by some it has been named the yellow gum. It seems to be occasioned by the sudden change in the circulation of the blood, immediately on the birth, by which an increased flow of blood is conveyed to the liver, and consequently an increased secretion of bile follows, which from various causes may be prevented from passing off freely into the intestines. It is attended with no danger, and is generally removed by mild purgatives.

The hare-lip, frænum linguæ, or tongue-tied, requires surgical aid.

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849. *Pain in the Bowels* may happen with or without diarrhea, and is often produced by improper food, or exposure to cold air. The symptoms are frequent fits of crying, drawing up the knees towards the bowels, which are hard and tense to the touch, accompanied either with an obstinate costiveness, or thin, watery, and frequent evacuations, slimy, sour, and of a green color. This complaint is oftentimes relieved by the following powders: Take Turkey rhubarb, in very fine powder, calcined magnesia, of each, twelve grains; compound powder of ipecacuanha, four grains. Mix them well together, and divide them into six doses: one to be given night and morning, to a child under three months; above that age, the dose should be increased.

The health and diet of the mother, or nurse, should be strictly attended to. In some cases the pain is extremely acute, and the agony of the child is known by its cries. Whenever this happens, the following mixture may be given: Take of Turkey rhubarb, in fine powder, twelve grains; magnesia, eight grains; tincture of rhubarb, one drachm; syrup of poppies, two drachms; simple mint-water, an ounce and a half. Mix them together. Dose, if within the first or second month, two teaspoonfuls every fourth hour. The phial should be shaken before the medicine is poured out.

850. *Other remedies for the Colic in Infants.*—A great variety of cordials, spices, and opiates, has been recommended, and frequently used, to relieve the pain and expel the wind. They may sometimes answer the purpose, especially in sudden fits of pain in the stomach, from cold or any other accidental cause. At all times, they should be sufficiently diluted with water, cautiously given, and seldom repeated. When the effects of these medicines go off, the pain returns; therefore it is not a desirable mode of obtaining relief. Of the cordials, Geneva, mixed with water, is the least objectionable; being impregnated with the essential oil of juniper-berries, it is an excellent and safe carminative. However, these warm medicines are by no means to be relied on for the removal of the cause of this malady, their effect being merely temporary: such as Godfrey's cordial, and other nostrums—being compounds of opium, spices, and brandy. Opium, when judiciously administered, is an invaluable remedy; the dose of it should be most accurately proportioned to the age of the patient, and urgency of the symptoms, otherwise it may become a *poison;* and, therefore, should never be given to children, unless under the direction of the most skilful in the profession. Few nurseries are without a medicine of this kind; it quiets the pain of the infant, induces sleep, and leaves the nurse to her repose. Children under this treatment become languid, pallid, incapable of exertion, and, at length, rickety.

The following anodyne mixture will generally relieve the griping pains of diarrhea:—Take of prepared chalk, and gum-arabic, each one drachm; syrup of white poppies, three drachms; Geneva, two drachms; water, four ounces. Mix them together. Dose, a dessert-spoonful after each motion.

In bowel-complaints, chalk has been objected to, as too powerful an astringent in checking diarrhea suddenly: this may be obviated by giving it only after each motion. When the bowels have been previously acted on, either by the rhubarb powders, or by the antimonial emetic, the chalk mixture is a never-failing remedy. It may be given with or without opium, according to the urgency of the symptoms.

The following medicine, by exciting a determination to the skin, effectually relieves the sufferings of the child:—Take ipecacuanha, in coarse powder, two drachms; boiling water, four ounces. When cold, strain off the liquor through a fine piece of linen cloth: then add to three ounces of this liquor—of Ge-

neva, three drachms; syrup of white poppies, two drachms. Dose, a dessert-spoonful every fourth hour.

When this state of the bowels is followed by convulsions, the lower extremities, or the whole body, should be immersed in a warm bath. During the preparation of a bath, flannel dipped in warm water and wrung dry, may be applied to the extremities. Leeches and blisters, under skilful directions, will subdue the violence of the symptoms.

851. *Convulsions*—Are generally symptomatic, and, for the most part, in children, occasioned by the growth of their teeth: therefore, the gums should be carefully examined, to ascertain whether they arise from this cause; if so, the lancet should be immediately and freely used, to divide the gum down to the teeth. This operation is not painful, nor in the least degree hazardous, therefore ought not to be delayed.

852. *Dentition.*—There is no period in infancy that requires more skill and attention, than that which passes from the first movement of the teeth in their sockets, to their subsequent advance through the gums. At the birth of the child, the teeth are lodged within the jaw-bones, and enveloped by a membrane or bag, which is distended as the teeth enlarge and press forward, frequently attended with pain, fever, diarrhea, and convulsions. These symptoms first appear towards the end of the third month, when the child is said to be breeding its teeth: they arise from the first enlargement of the teeth in their sockets, and subside as soon as they pass above the jaw. Between the sixth and ninth month, the teeth as they rise, press upon the gums, when the same train of symptoms take place. Some children suffer very little pain during this process; others suffer most severely: this depends chiefly on the nerves being more or less irritable. When the child preserves its appetite and cheerfulness, and is free from fever, no medicine can be required, except what may be necessary to obviate costiveness. This should be carefully attended to, as nothing tends more effectually to relieve or prevent the symptoms of dentition, than a free discharge from the bowels.

An increased secretion of saliva marks the first advance of the teeth, followed, in irritable habits, by diarrhea, fever, thirst, and convulsions. The use of the gum-lancet should not be neglected, whenever the symptoms are urgent. The parents

frequently object to this mode of relief, conceiving it to be a painful operation. As a proof of the contrary, children that have once been relieved by it, will eagerly press their gums upon the lancet. If the tooth should not appear after the first use of the lancet, the incision may be frequently repeated.

The symptoms may be relieved by the following emetic:—Take of tartar-emetic, one grain; dissolve it in two ounces of distilled water. Dose, two tea-spoonfuls every half-hour, until it excites vomiting.

This remedy will relax the tension of the gums, and lessen the force of the fever.

If the habit of the child should be costive, the mildest purgatives should be employed, to occasion two or more motions daily—such as manna, dissolved in common mint-water; or senna-tea; or the following:—Take of senna leaves, one drachm; the yellow rind of the lemon, eight grains: boil them in two ounces of water; strain off the liquor, when cold; and give a dessert-spoonful as a dose for children three or four months old. Or, take manna and fresh-drawn oil of sweet almonds, of each, one ounce; syrup of roses, two ounces: mix them together. Dose, a dessert-spoonful.

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853. *The Croup*—At its commencement has the appearance of common catarrh, but speedily assumes its peculiar character, which is marked by hoarseness, with a shrillness and ringing sound in coughing and breathing; so shrill is the noise made by the child, that it resembles the sound of air forced through a tube of brass. This inflammation, seated in the membrane which lines the windpipe, is attended with stricture, difficult respiration, cough, quick pulse, heat, and a flushed countenance.

This disease comes on suddenly, and is extremely rapid in its progress; therefore, vigorous measures must be instantly adopted. Give an emetic, then apply a blister across the throat, and keep the bowels open with laxative injections.

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854. *Cure for Croup.*—Dr. Fisher, of Boston, relates in a late number of the Medical *Journal*, a case in which a severe attack of croup was cured by the application of sponge, wrung out of hot water, to the throat, together with water treatment, which he describes as follows:—

"Soon after making the first application of sponges to the throat, I wrapped the child in a woollen blanket, wrung out in

warm water, as a substitute for a warm bath, and gave twenty drops of the wine of antimony in a little sweetened water, which was swallowed with difficulty. I persevered in the application of the hot, moist sponges for an hour, when the child was so much relieved that I ventured to leave it.

"These applications were continued through the night, and in the morning the child was well."

It will never do to trifle with this terrible disease. The quicker the remedies are applied, the better. Instead of antimony, we would recommend small quantities of alum water, given every ten or fifteen minutes, until the child vomits.

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855. *Rickets*—Are, for the most part, induced by improper food and bad nursing. Their approach is marked by a sickly, pallid countenance, cough, and difficult respiration. The bones of the legs and arms lose their firmness, and become more or less crooked; the bones of the head do not unite, and the spine becomes distorted. At its first appearance it may be successfully counteracted by a strict attention to cleanliness in every thing that concerns the child, by exercise in the open air, by cold bathing, by friction of the limbs night and morning, and by a light, nutritious diet. Before the use of the bath, the bowels should be cleared by the following aperient powder:—

Take of Rhubarb, in fine powder, six grains; calcined magnesia, three grains; common mint-water, six drachms. Mix them together.

During the use of the cold bath, either Peruvian bark or steel may be employed to strengthen the child: such as,

The precipitate of the sulphate of iron, three grains; syrup of cinnamon, a tea-spoonful. When mixed, to be taken three times a-day. Or, take of the resinous extract of bark, one drachm; the syrup of cinnamon, seven drachms. Mix them together. The dose, a tea-spoonful, three times a-day

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856. *Scrofula*,—Although it has been considered as an hereditary disease, may be induced in a child, whose parents have no such taint, by a neglect of proper food, air and exercise. On the contrary, when the taint does exist in the parent, the offspring may pass through life with the enjoyment of tolerable health, by a strict attention to those means which are known to invigorate the body. Of preventives, there are none so efficacious as sea air, sea bathing, and the internal use of the sea wa-

ter, in sufficient quantity to act on the bowels, and the local application of it to the glands which are enlarged. Indeed, the children of diseased parents should reside on the coast, in order to have the full benefit of these advantages. Friction should be applied generally on the surface of the body, with the hand covered with a flannel glove, night and morning. Food of easy digestion is to be preferred, such as shell-fish, game, poultry, beef or mutton. Bark and steel, as medicines, may be occasionally administered with good effect. This disease, which bids defiance to the regular physician, cannot with propriety be placed on the list of casualties, or sudden seizures.

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857. *Worms.*—There are three species of worms which infest the intestines: namely, the flat worm, or tænia; the long, round worm, or lumbrici; the short, round worm, or ascarides. The tænia is of rare occurrence when compared with the lumbrici or ascarides, but more difficult to remove. Full doses of sulphate of iron, with occasional active doses of calomel, force them to retire. The lumbrici are destroyed by repeated doses of calomel and scammony. The ascarides, being found in the lowest portion of the intestines, are easily removed by injections of lime-water, or a solution of aloes.

Parents who would preserve their children from worms, ought to allow them plenty of exercise in the open air; to take care that their food be wholesome and sufficiently solid; and, as far as possible, to prevent their eating raw herbs, roots, or green trashy fruits. It will not be amiss to allow a child who is subject to worms, a glass of red wine after meals; as every thing that braces and strengthens the stomach, is good both for preventing and expelling these vermin. In order to prevent any mistake of what I have here said in favor of *solid* food, it may be proper to observe, that I only made use of that word in opposition to *slops* of every kind; not to advise parents to cram their children with meat, two or three times a-day. This should only be allowed at dinner, and in moderate quantities, or it would create, instead of preventing, worms; for there is no substance in nature which generates so many worms as the flesh of animals, when in a state of putrefaction. Meat, therefore, at the principal meal, should always be accompanied with plenty of good bread, and young, tender, and well-boiled vegetables; especially in the spring, when these are poured forth from the bosom of the earth in such profusion. They promote the end in view, by

keeping the body moderately open, without the aid of artificial physic. The ripe fruits of autumn produce the same effect; and, from their cooling, antiputrescent qualities, are as wholesome as the unripe are pernicious. I also very earnestly conjure parents not to take the alarm at every imaginary symptom of worms, and directly run for drugs to the quack, or apothecary. They should first try the good effects of proper diet and regimen, and never have recourse to medicines till after unequivocal proofs of the nature of the complaint.

Honey and milk are very good for worms; so is strong salt water; likewise, powdered sage and molasses taken freely.

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858. *Quinsy*—Is the common inflammatory sore throat, attended by a sense of heat and fulness in the throat, by difficult deglutition, generally preceded by shivering, with a sense of coldness. On inspection, the tonsils appear red and enlarged. These symptoms continuing to increase, the patient is threatened with suffocation, the tonsils suppurate, when, by a spontaneous bursting of the abscess, relief instantly follows. It often happens that the abscess does not give way so soon as expected, when the puncture of a lancet puts an end to the alarming sufferings of the patient. In some cases, the quantity of matter contained in the tumor is very considerable, and instances have occurred, when, from the sudden bursting of the tumor, the patient being in a horizontal position, suffocation has followed, from the matter falling into the lungs.

To guard against these evils, an emetic of ipecacuanha should be administered, and a blister applied to the neck. As soon as the effect of the emetic has ceased, and the stomach will receive it, give the following aperient mixture:—Take of tartarized kali, three drachms; infusion of senna, two ounces; tincture of senna, two drachms. Mix them together.

If blisters are objected to, a piece of fine flannel, moistened with the compound spirit of ammonia, may be placed round the neck. Gargles are to be used in every stage of this disease; at first, they should be mildly detergent, as the following:—Take of barley-water, six ounces and a half; honey of roses, one ounce; tincture of myrrh, and vinegar, of each, two drachms. Mix them together, and cleanse the mouth and throat with some of the gargle from time to time.

When the violence of the symptoms begins to subside, a sharper gargle becomes necessary; for this purpose the follow-

ing is recommended:—Take of infusion of red roses, seven ounces; honey of roses, one ounce; diluted sulphuric acid, twenty drops. Mix them together.

Throughout the course of this disease, keep the bowels open with mild purgatives or laxative injections. When the swelling of the tonsils comes on rapidly, send instantly for a surgeon.

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859. *Whooping Cough.*—This is a violent, convulsive cough, attended at first with slight febrile symptoms. Its shortest duration is three weeks; during this time, the symptoms may be rendered milder, or more aggravated, by the mode of treatment.

During the first three or four weeks, keep the child or patient in an uniform degree of temperature; if possible, never below 64 degrees of Fahrenheit's scale. The diet should be light, chiefly bread, milk, and vegetables with butter. Rice or Indian puddings, with plenty of molasses, are good food for children in this disease. If the cough is very violent, and the phlegm hard in the throat, a gentle emetic of ipecacuanha, or some preparation of antimony, should be given every second or third morning, to clear the stomach from the mucus which, in this cough, is constantly secreted. By these means, the violence of the disease will soon be overcome; whereas, by an exposure to cold air, and neglecting all precautions, you may aggravate and continue the cough for months. In the summer, change of air is one of the best remedies; and be sure to avoid whatever has a tendency to irritate the throat, or excite the action of the heart. In this, as in every other disease, the state of the bowels should be carefully attended to. A mild aperient is sometimes necessary.

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860. *Colds.*—The best *preventive* of colds, is to wash your children every day thoroughly in cold water, if they are strong enough to bear it; if not, add a little warm water, and rub the skin dry. This keeps the pores open. If they do take cold, give them a warm bath as soon as possible; if that is not convenient, bathe the feet and hands, and wash the body all over in warm water; then give a cup of warm tea, and cover the patient in bed.

861.—If a *Sore Throat* follow, take a tumbler of molasses and water, half-and-half, when going to bed; and rub the throat

with a mixture of sweet or goose-oil and spirits of turpentine; then wear flannel round it.

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862. *Canker, or Sore Mouth.*—Steep blackberry-leaves, sweeten with honey, sprinkle in a little burnt alum, and wash the mouth often with this decoction.

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863. *Cutaneous Eruptions in Children.*—Children, while on the breast, are seldom free from eruptions of one kind or other. These, however, are not often dangerous, and ought never to be dried up but with the greatest caution. They tend to free the bodies of infants from hurtful humors, which, if retained, might produce fatal disorders. The eruptions of children are chiefly owing to improper food and neglect of cleanliness. If a child be stuffed at all hours with food that its stomach is not able to digest, such food not being properly assimilated, instead of nourishing the body, fills it with gross humors. These must either break out in form of eruptions upon the skin, or remain in the body, and occasion fevers and other internal disorders.

Eruptions are the effect of improper food, or want of cleanliness: a proper attention to these alone will generally be sufficient to remove them. If this should not be the case, some drying medicines will be necessary. When they are applied, the body ought at the same time to be kept open, and cold is carefully to be avoided. We know no medicine that is more safe for drying up cutaneous eruptions than sulphur, provided it be prudently used. A little of the flour of sulphur may be mixed with fresh butter, oil, or hog's lard, and the parts affected frequently touched with it.

The most obstinate of all the eruptions incident to children are, the *tinea capitis*, or scabbed head, and chilblains. The scabbed head is often exceedingly difficult to cure, and sometimes, indeed, the cure proves worse than the disease. I have frequently known children seized with internal disorders, of which they died soon after their scabbed heads had been healed by the application of drying medicines. The cure ought always first to be attempted by keeping the head very clean, cutting off the hair, combing and brushing away the scabs, &c. If this is not sufficient, let the head be shaved once a-week, washed daily with yellow soap, and gently anointed with a liniment made of train-oil, eight ounces, red precipitate, in fine powder, one drachm. And if there be proud flesh, it should be

touched with a bit of blue vitriol, or sprinkled with a little burnt alum. While these things are doing, the patient must be confined to a regular light diet, the body should be kept gently open, and cold, as far as possible, ought to be avoided. To prevent any bad consequences from stopping this discharge, it will be proper, especially in children of a gross habit, to make an issue in the neck or arm, which may be kept open till the patient becomes more strong, and the constitution be somewhat mended.

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864. *Wounded Feet.*—When a nail or pin has been run into the foot, instantly bind on a rind of salt pork; if the foot swell, bathe it in a strong decoction of wormwood, then bind on another rind of pork, and keep quiet till the wound is well. The lockjaw is often caused by such wounds, if neglected.

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865. *For a Bruise or Sprain.*—Bathe the part in cold water, till you can get ready a decoction of wormwood. This is one of the best remedies for sprains and bruises. When the wormwood is fresh gathered, pound the leaves and wet them either with water or vinegar, and bind them on the bruise; when the herb is dry, put it into cold water, and let it boil a short time, then bathe the bruise and bind on the herb.

Always keep cotton wool, scraped lint, and wormwood on hand.

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866. *Ear-ache in Children.*—The ear-ache is usually caused by a sudden cold. Steam the head over hot herbs, bathe the feet, and put into the ear cotton wool wet with sweet oil and paregoric.

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867. *To make Artificial Sea Water, for bathing Children.*—Take common sea salt, two pounds; bitter purging salt, two ounces, magnesia earth, half an ounce; dissolve all in river water, six gallons. These are the exact proportions and contents of sea water, from an accurate analyzation.

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868. *Another method of making Sea Water.*—Take common salt, half an ounce; rain, or river water, pure, a pint; spirit of sea salt, twenty drops. Mix it.

869. *Valuable concise Rules for preserving Health in Winter.*—Keep the feet from wet, and the head well defended when in bed; avoid too plentiful meals; drink moderately warm and generous, but not inflaming liquors; go not abroad without breakfast. Shun the night air as you would the plague; and let your houses be kept from damps by warm fires. By observing these few and simple rules, better health may be expected than from the use of the most powerful medicines.

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870. *Avoid, as much as possible, living near Church-yards.*—The putrid emanations arising from church-yards are very dangerous; and parish-churches, in which many corpses are interred, become impregnated with an air so corrupted, especially in spring, when the ground begins to grow warm, that it is prudent to avoid this evil as much as possible, as it may be, and, in some cases, has been, one of the chief sources of putrid fevers which are so prevalent at that season.

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871. *Cautions in visiting Sick Rooms.*—Do not venture into a sick room if you are in a violent perspiration; for the moment your body becomes cold, it is in a state likely to absorb the infection; nor visit a sick person, (if the complaint be of a contagious nature,) with an *empty stomach*, nor swallow your saliva. In attending a sick person, place yourself where the air passes from the door or window, to the bed of the invalid, not between the invalid and the fire, as the heat of the fire will draw the infectious vapor in that direction, and you would run much danger from breathing in it.

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872. *Syncope, or Fainting.*—When fainting comes on from loss of blood, inanition, or sudden emotions of the mind, the patient should be placed in a horizontal position, with the head gently raised. Volatile salts should be applied to the nose, and when the patient is sufficiently recovered, a few spoonfuls of warm cordial medicine should be administered.

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873. *Preventive of Autumnal Rheumatisms.*—For the sake of bright and polished stoves, do not, when the weather is cold, refrain from making fires. There is not a more useful document for health to the inhabitants of this climate, than "follow your feelings."

874. *To promote Sleep.*—No fire, candle, rush-light, or lamp, should be kept burning, during the night, in a bed-room; for it not only vitiates the air, but disturbs the nerves of the child. Keep the bed-chamber well ventilated—this greatly promotes healthful rest.

875. *Useful Properties of Celandine.*—The juice of this plant cures tetters and ring-worms, destroys warts, and cures the itch.

876. *Singularly useful Properties of Garlic.*—The smell of garlic, which is formidable to many ladies, is, perhaps, the most infallible remedy in the world against the vapors, and all the nervous disorders to which women are subject. Of this (says St. Pierre) I have had repeated experience.

877. *The Usefulness of two common Plants.*—Every plant in the corn-field possesses virtues particularly adapted to the maladies incident to the condition of the laboring man. The poppy cures the pleurisy, procures sleep, stops hemorrhages, and spitting of blood. Poppy seeds form an emulsion similar to that from almonds in every respect, when prepared in the same manner. They also yield, by expression, fine salad oil, like that from Florence. The blue-bottle is diuretic, vulnerary, cordial, and cooling; an antidote to the stings of venomous insects, and a remedy for inflammation of the eyes.

QUALIFICATIONS OF A GOOD NURSE.

878. *Good Temper.*—An even temper is among the principal qualifications, if not the most desirable one, for a good nurse; and without this gentleness and a kind manner, she must be considered deficient.

879. *Firmness.*—Next in importance to good temper, are *firmness* and decision of character, the exercise of which is frequently, or rather absolutely indispensable, in the management of the sick.

880. *Discrimination.*—This talent enables the nurse to distinguish between circumstances which, to an unobserving person, appear nearly allied to each other, but where there is, in

reality, an important difference. It is only or generally acquired by experience and observation, and requires good sense as its foundation and support. It is the faculty of right judgment.

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881. *Self-denial.*—The business of taking care of the sick, if rightly attended to, requires a devotion to the interests and wants of the patient, which can only be given by the good nurse, who can willingly, and from her heart, practise the heavenly precepts of doing as she would be done by, and denying herself any indulgences that interfere with her duties.

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882. *General Intelligence.*—Another important qualification of a good nurse, is such knowledge of reading, and subjects of general interest, as make her able to interest and amuse her patient during the weary hours of slow recovery, or desponding intervals of intermitting diseases.

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883. *Abstinence from improper habits.*—The habit of using snuff in any manner—smoking—sipping intoxicating liquors—taking opium—or indulging in any improper and disagreeable habit of actions or expressions, should be carefully avoided by those who hold the responsible and important station of nurses of the sick.

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884. *Cleanliness.*—This is a cardinal virtue; and no woman can be a good nurse who is careless in her own apparel, and slatternly in her habits. In the preparation of food for the sick, the most scrupulous neatness should be observed.

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885. *Industry, Economy, and Good Housewifery.*—All three of these qualifications are essential, and usually associated in the same person; but, the *exercise* of qualities is necessary to their improvement—and a nurse who has proved herself competent, is most worthy of being trusted.

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886. *Prudence and Piety.*—The principles of true discretion, or prudence of character, are based on the Christian religion, as are all the moral virtues. The nurse must be religious, or she will rarely be discreet; and the opportunities constantly afforded her of influencing the mind and heart of her patient,

render her station one of great trust and responsibility. A *good nurse* is a woman that deserves honor as wel' as reward.

887. *Rules for the Nurse.*—1. Keep the patient's room quiet, well-aired, and clean as possible.

2. Never excite disagreeable mental emotions in the sick, by telling sad stories and melancholy news; nor allow the presence of unpleasant persons or objects.

3. Never whisper, nor seem to be telling what the sick are not permitted to hear.

4. Administer to the necessities of the invalid, promptly and kindly; but do not worry him with questions and constant attentions, when these are not needed.

5. Never disturb the quiet sleep of the patient, even to give medicine, unless peremptorily charged to do so by the physician. A refreshing sleep is often better than medicine, for the sick; but do not sleep yourself, and allow the suffering one to lie awake, and needing your care.

888. *Administering Medicine.*—There are certain rules, if observed in giving medicine, that will render the duty less disagreeable to the nurse, by making it more tolerable to the patient.

1st. Select the most agreeable and suitable ingredient in which it is to be exhibited.

2d. Take as small a quantity of this as can possibly be made to answer the purpose of mixing.

3d. If it be disagreeable to the taste, prepare the mouth for its reception by holding in, and rinsing it with some acid, as strong vinegar, lemon juice, or something of the kind.

4th. Never mix the medicine within sight or hearing of the patient.

5th. Let it be prepared without her knowledge; and insist upon its being taken immediately upon being presented, for the longer her mind is permitted to dwell upon it, the more abhorrent it will become.

6th. Endeavor to destroy the taste and smell as much as possible, by any appropriate means, when it has not been done by the apothecary or physician.

7th. Let the mouth be well rinsed with the acid after taking it, and let a swallow or two of lemonade, or some other admissible drink, be taken.

889. *Plasters and Poultices—Mustard Plasters.*—Take a sufficient quantity of bread crumbs finely rubbed, add mustard in proportion to the required strength; form a poultice of the proper consistency, by adding vinegar or water. Dr. Wood thinks water preferable, as he is of the opinion that vinegar destroys an essential property of the mustard. Mustard employed for this purpose should be whole grain, fresh as can be procured, and bruised or mashed in a mortar, or by any other convenient means. When mustard cannot be procured, horse radish leaves may be substituted; they must be rolled with a rolling-pin, to mash and make soft the hard stems, and withered by pouring over them a little scalding water.

After they have been applied, the feet must be frequently examined to see that they do not get cold. Often more harm than good is done by the nurse neglecting this part of her duty. Burdock and cabbage leaves are frequently directed to be applied to the feet; they are prepared in the same manner, and require the same attention.

890. *Spice Plaster.*—Pulverized cloves, cinnamon, and Cayenne pepper, half an ounce each; mix, and add flour and wine of galls, or diluted spirits, to form this plaster; lay it hot on the region of the stomach. It is excellent for pains and spasms.

891. *Alum Cataplasm.*—Take any quantity of the white of eggs; agitate it with a large lump of alum, till it be coagulated.

892. *Cataplasm of common Salt.*—Take crumbs of bread, and linseed meal, of each equal parts; water, saturated with salt, a sufficient quantity to give it a proper consistency.

This poultice may be applied to the indolent swellings of the glands, in scrofulous habits, where the patient is deprived of the benefit of the sea air and water. A constant use of it will frequently occasion great inflammation of the skin, requiring a suspension of its use for a few days; but as soon as the inflammation subsides, it should be repeated. By the use of this poultice, strumous humors, and scrofulous enlargements, of a chronic nature, have been totally dispersed.

893. *Cerate of Cantharides.*—Take of spermaceti ointment, six drachms; cantharides, in fine powder, one drachm. Mix them together.

This is the proper application to keep up a constant discharge from the part to which a blister has been applied.

894. *Bark Poultice.*—Take of Peruvian bark, one ounce; sprinkle it over a piece of thick muslin of the required size; take another piece of the same size; lay it over the bark, and quilt them together, to keep the bark to its place; moisten it with brandy or vinegar. Some of the aromatics may be used in conjunction with the bark, if indicated.

Let it be worn over the stomach and bowels. It has proved singularly beneficial in cases of obstinate intermittents, and debility arising therefrom.

895. *Mush Poultice.*—Mush poultices are sometimes ordered; this constitutes an invaluable application in cases of violent pain in the stomach and bowels, such as colic, cramp, &c. It is made by simply boiling the corn-meal until it attains the proper consistency. It must be spread on a cloth, and applied as warm as can be endured. We have known the most inveterate cases relieved by it in fifteen minutes.—*Shore.*

FOOD FOR THE SICK AND FOR CHILDREN.

896. A few rules, the reasons for which may be found in the Introductory Remarks of "Mrs. Hale's New Cook Book," will be of some advantage here:—

First. Select those substances that are the most soluble—that are readily converted into chyle by the *gastric juice.*

Second. Those that experience has shown to be the most nutritious.

Third. Those that contain the least amount of stimulus.

Fourth. These to be given in quantity and frequency proportioned to the general strength or debility of the patient.

By careful observation, the feelings of the invalid will be found to furnish the most unequivocal evidence of the truth of the foregoing principles—any deviation from which will soon be attended with symptoms more or less unpleasant.

897. *Arrow-root*—Contains, in small bulk, a greater proportion of nourishment than any other farinaceous substance yet known.

Take of arrow-root, one table-spoonful; sweet milk, half a pint; boiling-water, half a pint: boil these together for a few moments.

898. *Arrow-root Jelly.*—Take one spoonful of arrow-root, and cold water sufficient to form a paste; add one pint of boiling water: stir it briskly, and boil it a few minutes, when it will become a smooth, clear jelly. A little sugar and sherry wine may be added, for debilitated patients; but for infants, a drop or two of the essence of caraway-seed or cinnamon is preferable, wine being very apt to become acid in the stomach of infants, and thus disagree with the bowels.

899. *Sago.*—Take two table-spoonfuls of sago, and one pint of boiling water; stir together, and boil gently, until it thickens. Wine, sugar, and nutmeg may be added, according to circumstances.

900. *Boiled Flour.*—Take of fine flour, one pound; tie it up in a linen cloth as tight as possible, and, after frequently dipping it in cold water, dredge the outside with flour, till a crust is formed round it, which will prevent the water soaking into it while boiling. It is then to be boiled until it becomes a hard, dry mass.

Two or three spoonfuls of this may be grated, and prepared in the same manner as arrow-root, for which it forms an excellent substitute, and can be obtained in the country, where, perhaps, the other cannot.

901. *A nourishing Jelly for a Sick Person.*—Put into a stone jar or jug, a set of calf's-feet, cut in pieces, a quart of milk, five pints of water, a little mace, half an ounce of isinglass, and a handful of hartshorn shavings. Tie some brown paper over the jug, and put it into the oven with household bread. When done, strain it through a sieve; and when cold, take off the fat. Some of it may occasionally be warmed up with wine and sugar. It is good taken as broth, with herbs.

902. *Restorative.*—One ounce of candied eringo-root, one ounce of sago, one ounce of pearl-barley, and one ounce of rice. Boil them in four quarts of water, till reduced to half that quantity. Take a dessert-spoonful either in milk or wine.

903. *Vegetable Soup.*—Take one turnip, one potato, and one onion; let them be sliced, and boiled in one quart of water for an hour; add as much salt and parsley as is agreeable, and pour the whole on a slice of toasted bread.

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904. *Egg Gruel.*—Boil a pint of new milk; beat two new-laid eggs to a light froth, and pour in while the milk boils: stir them together thoroughly, but do not let them boil. sweeten it with the best of loaf-sugar, and grate in a whole nutmeg; add a little salt, if you like it. Drink half of it while it is warm, and the other half in two hours. It is said to be good for the dysentery, as well as nourishing.

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905. *Rice Jelly.*—Boil a quarter of a pound of rice-flour with half a pound of loaf-sugar, in a quart of water, till the whole becomes one glutinous mass; then strain off the jelly, and let it stand to cool. This food is very nourishing and beneficial to invalids.

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906. *Gruels.*—Have ready a pint of boiling water, and mix three large spoonfuls of finely-sifted oat-meal, rye, or Indian, in cold water; pour it into the skillet while the water boils; let it boil eight or ten minutes. Throw in a large handful of raisins to boil, if the patient is well enough to bear them. When put in a bowl, add a little salt, white sugar, and nutmeg.

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907. *Stewed Prunes.*—Stew them very gently in a small quantity of water, till the stones slip out. Physicians consider them safe nourishment in fevers.

DRINKS FOR THE SICK.

908. Water is the beverage prepared by the bountiful Creator to allay the thirst of all living creatures on the earth; and when the bare quenching of thirst is the object, clear, pure cold water is the best drink that can be given: but, when other objects are to be attained, a combination becomes necessary, into which, generally, enters an acid, an alkali, a stimulus, a tonic, or some article of nourishment. In bilious diseases, acidulated drinks are often found beneficial—and one of the best of these is in the form of lemonade.

909. *Lemonade.*—Take fresh lemon-juice, four ounces; fresh and very thin-peeled lemon, half an ounce; white sugar, four ounces; boiling water, three pints. Let this mixture stand till cold, then strain for use. As this drink sometimes causes pain in the bowels, it should not be drank too freely.

910. *Apple-Water.*—Take one tart apple of ordinary size, well baked; let it be well mashed; pour on it one pint of boiling water; beat them well together; let it stand to cool, and strain it off for use. Add loaf-sugar, if the patient desire it.

911. *Vinegar Mixture.*—Take of good vinegar three ounces; water, one pint; loaf-sugar, two-and-a-half ounces.

ALKALESCENT DRINKS.

912. These are used for what is commonly termed, a *sour stomach—heart-burn*—arising from indigestion. The following is the combination employed by an eminent physician, in his own case.

913. *Dyspeptic Ley.*—Take of hickory ashes, 1 quart; soot, two ounces; boiling water, 1 gallon. Mix, and let them stand for twenty-four hours, frequently stirring the ingredients; then pour off the ley, and bottle it up. A tea-cup of this liquor may be given three times a-day.

STIMULATING DRINKS.

914. These are given in cases of great debility. Madeira, sherry, or port wines are usually combined with some other fluid, like the following.

915. *Wine Whey.*—Take of fresh cow's milk, half a pint; white Madeira wine, one ounce. Boil the milk, then add the wine.

916. *Mustard Whey.*—Cow's milk, 1 pint; bruised mustard seed, one ounce; simmer together till the curd separates, then add half a pint of Madeira wine. A spoonful of this to be taken every hour or two, in low fevers and cases of debilitated stomachs.

TONIC DRINKS.

917. *Decoction of Peruvian Bark.*—Peruvian bark, bruised, one ounce; cold water, one pint. Boil together for ten minutes, then add half an ounce of Virginia snake-root, and two drachms of orange-peel, bruised. Keep the infusion near the fire for half an hour, in a close vessel. A wine-glassful may be taken every hour.

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918. *Columbo Root and Ginger.*—Columbo root, bruised, one ounce; ginger, two drachms; boiling water, one pint. Let them infuse one hour by the fire; and give of the strained liquor (cold) a wine-glassful every two hours.

This infusion, when freely used, has proved successful in bowel complaint (chronic diarrhea) of long standing.

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919. *Peruvian Bark and Valerian.*—For this decoction, take Peruvian bark, bruised, one ounce; water, one pint; take of Valerian root, one ounce; boiling water, one pint; infuse for one hour and strain. Add the decoction of bark to this infusion, and give a tea-cupful, cold, three or four times a-day.

This is chiefly employed in rheumatic headache, in which it is sometimes very serviceable. It was a favorite prescription of the late Dr. Parrish.

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920. *Chamomile and Orange-peel.*—For this infusion, take chamomile-flowers, one ounce; orange-peel, half an ounce; cold water, three pints; soak together twenty-four hours. Take a tea-cupful four times a-day.

The chamomile infusion is more agreeable to the taste when cold, and is less apt to spoil than when made of boiling water.

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921. *Wild Cherry-tree Bark.*—Take of this bark, dried and bruised, one ounce; orange-peel, bruised, two drachms; water, one pint. Boil the bark alone for ten minutes, then add the orange-peel. Take a wine-glassful, cold, twice a-day.

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922. *Dog-wood Bark.*—Dog-wood bark, bruised, one ounce; water, one pint. Boil for twenty or thirty minutes and strain. A wine-glassful may be given every hour. This is a very good substitute for Peruvian bark in fever-and-ague.

923. *Sage Tea.*—Night sweats have been cured, when more powerful remedies had failed, by fasting morning and night, and drinking cold sage tea constantly and freely.

924. *Gentian-root Infusion.*—Gentian-root, half an ounce; orange-peel, pounded, two drachms; hot water, one pint. Let these stand an hour. This will be found useful in debility of the digestive organs. A wine-glassful may be given every two or three hours.

925. *Infusion for Rheumatism.*—One ounce of gum-guaiacum must be bruised and put into a pint of French brandy, in which it must remain for at least thirty hours. When the gum is dissolved, shake the bottle, and pour a little of this infusion into rather more than a wine-glassful of tepid water; take this at bed-time, for three nights.

926. *Mixture for Rheumatism.*—One ounce of salad mustard must be simmered in a pint of soft water, till the liquor is reduced to half a pint; strain it through muslin, and add a pint of milk, fresh from the cow. Let it boil only two minutes, and take a small tea-cupful, milk-warm, night and morning.

NUTRITIVE DRINKS.

927. *The best Method of obtaining pure Soft Water for Medicinal Purposes, without distilling it.*—Place an earthen pan in the fields, at a considerable distance from the smoke of any town, to catch the rain as it falls. People living in the country, can easily save this clean, pure rain-water. Set it for an hour in a cool cellar, or put ice into it, and it is the most reviving drink for a thirsty invalid.

928. *Toast and Water.*—Toast thin slices of bread on both sides carefully; then pour cold water over the bread and cover it tight for one hour; or use boiling water, and let it cool.

929. *Waters for cooling Draughts of Preserved or Fresh Fruits—Apple Water, Lemon Water, &c.*—Pour boiling water on the preserved or fresh fruits, sliced; or squeeze out the juice, boil it with sugar, and add water.

930. *Barley Water.*—Take pearl barley, two ounces; wash it, till it be freed from dust, in cold water: afterwards boil it in a quart of water for *a few* minutes, strain off the liquor, and throw it away. Then boil it in four pints and a half of water, until it be reduced one half.

931. *Laxative Whey.*—Take of the dried buds of the damask rose, one ounce; rennet whey, one quart. Let them stand together twelve hours, then strain off the liquor, and add of crystals of tartar, and white sugar, a suitable proportion, to render it more active, and at the same time more palatable.

932. *Wine Whey.*—Wine whey is a cooling and safe drink in fevers. Set half a pint of sweet milk at the fire, pour in one glass of wine, and let it remain perfectly still, till it curdles; when the curds settle, strain it, and let it cool. It should not get more than blood-warm. A spoonful of rennet-water hastens the operation. Make palatable with loaf-sugar and nutmeg, if the patient can bear it.

933. *Lemon Syrup, for a Cough.*—To a pint and a half of water, add two large poppy-heads, and two large lemons. Boil them till they are soft, press the lemons into the water, strain the liquor, and add half a drachm of saffron, and half a pound of brown sugar-candy, pounded. Boil all together till the sugar-candy is dissolved; stir the whole till you perceive it will jelly; strain it a second time, and take the seeds from the poppies.

934. *Turnip Syrup, for a Cold or Affection of the Lungs.*—Roast twelve or more fine turnips in an apple roaster, press the juice from them, and add sugar-candy to your taste. Take a tea-cupful at night and in the morning.

935. *Rose Gargle.*—Take of red rose-buds, dried, half an ounce; boiling water, two pints; diluted vitriolic acid, three drachms; mix these together, macerate for half an hour, and draw off the liquor. Sweeten with an ounce of honey.

936. *Detergent Gargle.*—Borax powder, two drachms; rose-water, six ounces; honey of roses, one ounce. Mix together. To be used in the thrush.

937. *Common Gargle.*—Honey-water, seven ounces; honey of roses, six drachms; vinegar, half an ounce; tincture of myrrh, two drachms. Mix these together.

938. *Starch Injection.*—Take of the jelly of starch, four ounces; linseed oil, half an ounce. Mix them over a gentle heat, and add forty drops of tincture of opium. To be used in alvine fluxes, to allay the irritation which occasions constant tenesmus.

939. *Spermaceti Ointment.* — Take of spermaceti, half an ounce; white wax, two ounces; olive oil, four ounces. Melt them together over a slow fire, and keep stirring till cold.

940. *Elder-flower Ointment.*—Gather the buds or earliest flowers of the elder-bush; simmer these in fresh butter, or sweet lard; it makes a healing and cooling ointment for the skin, in cutaneous diseases.

941. *Elder-flower Poultice.*—A poultice of elder-flower tea and biscuit, is good as a preventive to mortification.

942. *White-bean Poultice.*—Nothing is so good to take down swellings, as a soft poultice of stewed white beans, put on in a thin muslin bag, and renewed every hour or two.

A FEW SIMPLE MIXTURES, &c.

943. *Squill Mixture.*—Take of the milk of ammoniacum, four ounces; syrup of squills, three ounces; mix them together. Dose, two large spoonsful every sixth hour. It is efficacious in coughs, asthma, and oppression on the chest.

944. *Chalk Mixture.*— Take of prepared chalk, one ounce; double refined sugar, six drachms; gum arabic, in powder, one ounce; water, two pints. Mix them together.

945. *Camphor Mixture.*—Take of camphor, one drachm; rectified spirit of wine, a few drops. Rub them together. Add half an ounce of double refined sugar and one pint of boiling distilled, or rain water. When cold, strain off the liquor.

946. *Infusion of Senna.*—Take of senna leaves, one ounce and a half; ginger, in powder, one drachm; of boiling distilled, or rain water, one pint. Macerate for an hour. When cold, strain off the liquor.

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947. *Cordial Julep.*—Take of peppermint water, four ounces; pimento water, two ounces; compound spirit of ammonia, tincture of castor, of each two drachms. Mix them together. Dose, two large spoonsful.

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948. *Mucilage of Quince Seed.*—Take of quince seeds, one drachm; rain or distilled water, half a pint. Boil over a gentle fire, until the liquor becomes thick and viscid.

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949. *Lime Water.*—Take of quick lime, eight ounces; rain or distilled water, twelve pints. Suffer them to stand together one hour, then decant the liquor.

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950. *Alum Whey.*—Take of alum, two drachms; cow's milk, one pint. Boil them together, until the curd be formed; then strain off the liquor, and add spirit of nutmeg, two ounces; syrup of cloves, one ounce.

It is employed with advantage in diabetes, in uterine and other fluxes.

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951. *Whortleberries.*—Whortleberries, commonly called huckleberries, dried, are a useful medicine for children. Made into tea, and sweetened with molasses, they are very beneficial, when the system is in a restricted state, and the digestive powers out of order.

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952. *Blackberries.*—Blackberries are extremely useful, in cases of dysentery. To eat the berries is very healthy; tea, made of the roots and leaves is beneficial; and a syrup made of the berries is still better. Blackberries have sometimes effected a cure when physicians despaired.

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953. *Method of causing Children to cut their Teeth easily.*—Feed them with an ivory spoon and boat—to be made thick, round, and smooth at the edges. Ivory being of the same hardness and texture as the jaws and tender teeth, the gums

are not hurt or injured, but, when they are thus pressed, facilitate the teeth in their progress; whereas, the silver implements, being of a hard texture, and the edges made thin, bruise and wound the gums, and make a hard seam; so that the teeth cannot make their way direct, and, if they do cut, come irregularly; so that the operation of lancing is frequently absolutely necessary, which, of course, must prejudice the teeth, as some are exposed before the time they are fit to cut.

By this method, fevers, convulsions, &c., owing to the teeth being not able to find their way through the hard seam, may be prevented. It must be often observed, that children cry much when feeding, as if ill, or disgusted with their food; whereas it is frequently owing to quite the contrary; for, being hungry, and over eager to take their food, they press hard, through eagerness, on the boat and spoon, which, being sharp, bruises and cuts the gums, and consequently causes great pain, which, by the ivory implements, will be prevented. Those who cannot afford ivory, may have horn or wood, or even pewter is greatly preferable to silver, provided the edges are made thick, round, and smooth. The wooden sort, unless they are kept very sweet and clean, on that very account, are the least eligible, and should be made, however, of box, or such hard and close-textured wood as is the least liable to be tainted by the milky food.

954. *Rules for the Preservation of the Teeth and Gums.*—The teeth are bones, thinly covered over with a fine enamel, and this enamel is more or less substantial in different persons. Whenever this enamel is worn through by too coarse a powder, or too frequently cleaning the teeth, or eaten through by a scorbutic humor in the gums, the tooth cannot remain long sound, any more than a filbert-kernel can, when it has been penetrated by a worm.

The teeth, therefore, are to be cleaned, but with great precaution; for, if you wear the enamel off faster by cleaning the outside than nature supplies it within, your teeth will suffer more by this method, than perhaps by a total neglect.

955. *Stammering.*—Impediments in the speech may be cured, where there is no mal-formation of the organs of articulation, by perseverance, for three or four months, in the simple remedy of reading aloud, with the teeth closed, for at least two hours in the course of each day.

956. *Of Preservers, and Rules for the Preservation of Sight.*—Though it may be impossible to prevent the absolute decay of sight, whether arising from age, partial disease, or illness, yet, by prudence and good management, its natural failure may certainly be retarded, and the general habits of the eyes strengthened, which good purposes will be promoted by a proper attention to the following maxims:—

1. Never sit for any length of time in absolute gloom, or exposed to a blaze of light. The reasons on which this rule is founded, prove the impropriety of going hastily from one extreme to the other, whether of darkness or of light, and show us that a southern aspect is improper for those whose sight is weak and tender.

2. Avoid reading small print.

3. Never read in the dark; nor, if the eyes be disordered, by candle-light. Happy those who learn this lesson betimes, and begin to preserve their sight before they are reminded by pain of the necessity of sparing them. The frivolous attention to a quarter of an hour in the evening, has cost numbers the perfect and comfortable use of their eyes for many years; the mischief is effected imperceptibly—the consequences are inevitable.

4. The eye should not be permitted to dwell on glaring objects, more particularly on first waking in the morning; the sun should not, of course, be suffered to shine in the room at that time, and a moderate quantity of light only be admitted. It is easy to see that, for the same reasons, the furniture of a bed should be neither altogether of a white or red color; indeed, those whose eyes are weak, would find considerable advantage in having green for the furniture of their bed-chamber. Nature confirms the propriety of the advice given in this rule; for the light of the day comes on by slow degrees, and green is the universal color she presents to our eyes.

5. The long-sighted should accustom themselves to read with rather less light, and somewhat nearer to the eye than what they naturally like; while those that are short-sighted, should rather use themselves to read with the book as far off as possible: by this means, both would improve and strengthen their sight; while a contrary course will increase its natural imperfections.

There is nothing which preserves the sight longer than always using, both in reading and writing, that moderate degree of light which is best suited to the eye: too little, strains them—too

great a quantity, dazzles and confounds them. The eyes are less hurt by the want of light, than by the excess of it: too little light never does any harm, unless they are strained by efforts to see objects to which the degree of light is inadequate; but too great a quantity has, by its own power, destroyed the sight. Thus, many have brought on themselves a cataract, by frequently looking at the sun or a fire; others have lost their sight by being brought too suddenly from an extreme of darkness into the blaze of day. How dangerous the looking on bright, luminous objects, is to the sight, is evident from its effects in those countries which are covered, the greater part of the year, with snow, where blindness is exceedingly frequent, and where the traveller is obliged to cover his eyes with crape, to prevent the dangerous and often sudden effects of too much light: even the untutored savage tries to avoid the danger, by framing a little wooden case for his eyes, with only two narrow slits. A momentary gaze at the sun will, for a time, unfit the eyes for vision, and render them insensible to impressions of a milder nature.

957. *The Feet*—Should be washed in cold water every morning, and wiped very dry. Stockings, if too small, cripple the feet as surely as small shoes. Always be careful to give the foot room enough, and you will be rarely troubled with corns. When the toe-nails have a tendency to turn in, so as to be painful, the nail should always be kept scraped *very thin*, and as near the flesh as possible. As soon as the corner of the nail can be raised up out of the flesh, it should be kept from again entering, by putting a tuft of fine lint under it.

958. *For Sore Feet.*—The thin white skin which comes from suet, is excellent to bind upon the feet, for chilblains. Rubbing with Castile soap, and afterwards with honey, is likewise highly recommended.

959. *A Vapor-Bath at home.*—Place *strong* sticks across a tub of water, at the boiling-point, and sit upon them, entirely enveloped in a blanket, feet and all. The steam from the water will be a vapor-bath. Some people put herbs into the water. Steam-baths are excellent for severe colds, and for some disorders in the bowels. They should not be taken without the advice of an experienced nurse or physician. Great care should be taken not to renew the cold after; it would be doubly dangerous.

RULES FOR WOMEN SERVANTS.

960. *Of the Cookmaid.*—When a young woman undertakes the situation of cookmaid in a family, where only one or two other servants are kept, she will have many duties to perform, besides preparing and dressing the provisions, although that is her principal business. What those duties are, will, of course, depend very much upon the habits of the family with whom she lives; and whether there is a man-servant or a boy kept; as, if not, the cleaning of knives, shoes, and various things that would be done by them, become the business of the cook-maid.

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961. *General duties of the Cookmaid.*—The part of the house in which her chief work lies is the kitchen; but she is also expected to clean the passage or hall, the stone door-steps, the bell-pull, name-plate, knocker, and all things outside the house which are kept cleaned; also, the kitchen stairs, pantry, servants' offices, and areas; and, in many families, the dining-room as well as the kitchen windows, and the light over or at the sides of the hall door. It is her place to scour the dresser, table, shelves, &c., in the kitchen and pantry, and to keep both places clean and in order; to wash the plates and dishes, to keep the saucepans and all other vessels used in cooking, or for keeping eatables in, perfectly clean, so that they may always be ready for use; to wash and keep the pudding-cloths sweet and clean; to sweep the carpet, and clean the grate, fender, fire-irons, and hearth, in the breakfast-parlor; to clean the kitchen candlesticks; to assist the housemaid in making the beds after they have been laid open to air; to answer the door to the trades-people; and, if there is no man-servant, nor boy kept, to brush the clothes and shoes of the gentlemen of the family.

It is of great importance that the cookmaid should be cleanly in her person, as well as in her cooking; and that she should never be seen with dirty hands, which may be easily prevented by using thick gloves, when blacking a stove or doing any other dirty work, and always washing her hands as soon as she has finished. Nothing can be more disagreeable than to see the person who prepares one's meals with dirty hands or apron.

962. *Arrangements for Work in the Kitchen.*—The cookmaid should always be furnished with her own pails, brushes, flannels, and everything she requires for her own work, and should never use the housemaid's pails or brushes, nor suffer the housemaid to use hers. A strict attention to this rule prevents much discomfort and confusion, and the work is sure to be done with more regularity, and much time saved.

963. *Work in the Breakfast-room.*—Your work in the breakfast-room generally is to light the fire, clean the stove, fender, fire-irons, and hearth; take up the ashes, sweep the carpet, shake the hearth-rug, and lay it down again; but this is sometimes varied in different families. If you find there are more cinders than you can use for lighting the fire, you should take them down to burn in the kitchen.

964. *Of Neatness in the Breakfast-room.*—In order to avoid soiling the carpet in the breakfast-parlor, while you are lighting the fire and cleaning the stove, you should have a piece of drugget, about a yard wide and two yards long, or cloth of some kind, to lay down; but whichever you use, always use it the dirty side upwards. Without this precaution, the most careful person cannot prevent the carpet from getting dirty before the fire-place.

965. *Punctuality in Servants.*—Punctuality is a very essential quality in a cookmaid, who ought to regulate her work so that the dinner should always be ready at the appointed time; and to avoid any mistake in this particular, she should know precisely the length of time required to cook each kind of food, according to the taste of those for whom she cooks, and then she should allow herself about fifteen to twenty minutes more, to take up the dinner, and for any little hindrance that may occur, she will be tolerably exact. The best means of being punctual is to keep everything in its proper place, and fit for use, so that no time may be lost in looking for this thing or that, or in having to clean any utensils that may be wanted for cooking.

966. *Economy in the Kitchen.*—Never waste anything, but have places and purposes for all articles in your keeping. Habits of economy are easily acquired, and the cookmaid

would do well to consider how much more valuable she must be to her employers, and how much more she will be respected, if she be careful, and make the most of the property that is intrusted to her charge, than if she uses it wastefully.

967. *Cleaning the Hall, &c.*—If you are quick with the breakfast-parlor work, you will, very likely, have time to clean the door-steps and passage before breakfast, which is much better than leaving them till afterwards: but this will, of course, depend on the breakfast-hour, as you must not, on any account, neglect to see that the water in the kettle is boiling, the urn-iron hot, and everything ready to take up the moment it is wanted.

968. *Making Breakfast.*—If you have toast to make, or bacon to cook, take care to have a clear fire, so that it may be done quickly, when wanted, and not before; for both toast and bacon should be hot from the fire, and not suffered to stand after they are done. Dry toast should be thin and crisp; to keep it so, set it on its edge in the toast-rack, directly it is made.

Never boil eggs by guess; if you have no clock in the kitchen, you should have a sand-glass or egg-boiler, for in guessing at the time, it is not possible to be quite exact, and half a minute too much or too little will spoil an egg. It is the duty of the cookmaid to prepare the breakfast; and that of the housemaid to carry it up to the breakfast-parlor.

969. *Cold Meats at Breakfast.*—In some families, whatever cold meat or cold poultry may have been left from the previous day, is served up at breakfast; in which case it is the cookmaid's duty to send it up, laid out neatly on clean and rather small-sized dishes, with breakfast plates and small clean knives and forks; sometimes it will require a little putting to rights, by trimming, and garnishing with a few sprigs of parsley, which, of course, she will attend to.

970. *To arrange for Children, &c.*—If the children of the family breakfast in the nursery, or require to go to school early, you will, most probably, be expected to cut their bread and butter, and get their breakfast ready for them; or, at all events, assist in doing so. It is your place also to get the kitchen breakfast ready for yourself and the housemaid, &c.;

and it will materially add to the comfort of your situation, if you take care to keep your table-cloth clean, and neatly folded, so that it may not have an untidy appearance when spread upon the table; and let the knives, and all the things you use for yourself and fellow servants, be clean like those you send up to the table of the family.

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971. *Taking Directions for Dinner.*—In most families, it is the custom of the lady of the house, to go into the kitchen every morning, to make arrangements with the cook about the dinner, and to give out from the store-closet such things as may be required for the day's use, either by the cookmaid or housemaid. You must then remember to ask for whatever you will want, so that you may not have to give trouble a second time. Some ladies prefer that the cookmaid should come into the parlor, to receive directions. Should this be the custom, you should make it a rule to wash your hands, and put on a clean apron, before you go in. There are some foolish servants, who have a mistaken notion that a lady should not trouble herself much with her kitchen; but every one ought to have the good sense to know that it is the province and duty of a mistress to superintend the order and management of every part of her household; and those servants who are conscious that they waste not, and perform their duties to the best of their ability, will never feel an objection; but, on the contrary, will be pleased that their mistress should see that they do so.

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972. *Making Beds, &c.*—When you have taken orders about dinner, you should go up into the bed-rooms, to assist the house-maid in making the beds—having already washed your hands, and put on your clean bed-apron. It is very proper to keep a bed-apron entirely for this purpose, one that will wrap quite round you, and tie together behind; and to take it off, and fold it up, as soon as the beds are made. It will serve for a week, with care; therefore, if you make a rule to put on a clean one every Monday morning, the bed-clothes and furniture will never get soiled by rubbing against your gown or clothes. Attention to such little niceties as these is so easy, that it is surprising any one should neglect them, particularly as they make all the difference between a good servant and a bad one.

973. *Arrangement of the Dinner-Table.*—Always have the salt-cellars filled with fine clean salt, and the cruets and cruet-stand dusted; and that each of the cruets are about half-full of vinegar, oil, pepper, sugar, &c., such as they are intended to hold; and although this is the housemaid's duty, it is only kind in the cookmaid to give the housemaid all the information she may require or ask for; a good dinner will look very unhandsome, unless the housemaid takes care that the salts and cruets are clean, and sufficiently filled to accompany it to table. The housemaid should also see that the mustard-cruet is quite clean, before it is put on the table; for if the mustard is dried on the edges, or on the spoon, it has a very disagreeable appearance, and betokens an untidy servant.

974. *The Dinner-Hour, and its Duties.*—In order more surely to be correct to the dinner-hour, allow yourself from fifteen to twenty minutes for taking up the dinner, and for any hindrances that may occur; and take care to have the fire made up in proper time for cooking—regulating the size of it according to what you have to cook. It should be stirred as little as possible while you are cooking; indeed, a good cookmaid stirs her fire only once during her roasting, and that is when she turns the meat, or alters the hanging of it, at which times she takes the meat and dripping-pan away from the fire, as stirring creates both dust and smoke; but as dust or coal may, by accident, fall into the dripping-pan, keep ready a dish-cloth, to wipe it out directly. Be mindful, also, to keep in the house a stock of the things that are commonly wanted, such as flour, salt, pepper, spices, &c.; but always make a point of using up what you had, before you begin upon the fresh supply; and be sure to put them away into their proper places, as you receive them—as mustard, pepper, spices, tea, coffee, &c., will spoil, if kept in the papers they are sent home in.

975. *Of Re-cooking.*—In cities, where the master of the house is often engaged in business until late in the day, the dinner-hour may be as late as four or five o'clock; in that case, there is an early dinner for the children and servants, for whom a pudding is usually to be made. It is a very material part of your business to know how to dress over, nicely, anything left from the preceding day's dinner, so that it may be used in the kitchen, if not required in the dining-room. For this purpose,

you should, when a joint is brought down from the dining-room, put it on a clean dish, and pour the gravy into a small basin or jelly-pot, and you will find it very useful in making nice, savory dishes of cold meat, or to put into hashes and stews, or warming up for gravy.

976. *Hot Plates for Dinner.*—Before sending up dinner, take care that you have enough hot plates. It is better to heat a few more than the exact number, lest an extra one may be wanted.

977. *Serving up Dinner.*—Whilst the dinner is being served up, the cook-maid may be required to assist, by taking the dishes to the door of the dining-parlor; also, in some families, by taking them from the housemaid, or from the outside of the dining-room door, when they are done with, that the housemaid, if she waits at dinner, may not have to leave the room. And the cookmaid will save herself much time and trouble, if she gets her dish-tub, in the sink, half filled with hot water, so that she may put the dishes and plates into it the moment they are brought from the dinner-table.

978. *Washing Dishes.*—The dirty dishes and plates should be put into a dish-tub of warm water, immediately they are taken from the dinner table; for, by this means, half the trouble of washing-up will be saved, as it will prevent the gravy, mustard, juice, &c., from cooling and drying on the plates and dishes. When you commence washing them, add sufficient boiling water to make it hot enough to wash them in, and with a dish-cloth wash them clean on both sides, one at a time. Rinse them immediately, in a pan full of cold water, part of which should stand under the tap, which should be turned a little on to keep it full. The reason for keeping the pan full of water and running over, is, that any grease, &c., which may rinse off the plates and dishes, may swim over into the sink in the act of rinsing, otherwise it would remain on the water, and make those you rinse, after the first few, look greasy, instead of clean and bright.

979. *Washing Saucepans, Kettles, &c.*—When you have washed all the dishes and plates used at dinner, as above directed, and put them in the rack to drain, the saucepans and

kettles which have been used for cooking, should next be cleaned. The proper plan is to fill them with cold water as soon as the food has been taken out of them, as, by this means, whatever may hang about the sides cannot stick close, nor dry on hard, and they will clean much more readily. If the insides are discolored or dirty, a little soda or wood-ash is the best thing to clean them with; or, if they are very dirty, the wood-ashes, or some soda, must be boiled up in them. They should afterwards be well rinsed with boiling-hot water, wiped, and made perfectly dry, by being placed for some time bottom upwards, before the kitchen fire. The upper rims of saucepans, and the rims and insides of the lids, must be kept quite clean. If tin saucepans are not completely dry, they will soon get rusty, and if copper ones are not perfectly cleaned and dried, they become poisonous. Never leave food of any kind in a saucepan to become cold.

980. *Washing Pudding-cloths, &c.*—Pudding-cloths should be washed as soon as possible after the puddings are taken out of them. They should be washed in clean warm water, without soap, rinsed and thoroughly dried before being folded and put in the kitchen drawer, otherwise they will give a musty smell to the puddings that are next boiled in them. The paste-brush, egg-whisk and sieves must also be washed, first in cold and then in warm water, and put away clean and dry, or they will spoil whatever you use them for afterwards. All things through which eggs are strained, should be washed, first in cold and then in hot water.

981. *Cleaning the Sink.*—First, wipe into one corner and take up all the little bits of gristle, fat, or vegetables, or whatever else may have collected in the sink; and, if you live in or near to a town, throw it on the back part of the top of the kitchen fire; for, if thrown into the dust-bin, it will either entice rats or other vermin, or else cause an offensive and unwholesome smell. If forced down the sink holes, the same unpleasant consequences will follow, besides stopping-up and destroying the drains. But if you live in the country where a pig is kept, it may be thrown into the pig tub with the dish washings.

You must next clean the sink, which, if of stone, is best done with a hard brush and a little soda; or, if of lead, with the following mixture:—One pennyworth of pearlash, one pennyworth

of soft-soap, and one pennyworth of fuller's-earth, (the fuller's-earth dried,) mixed together in a pipkin, or something of the kind, with a quart of water. About a table-spoonful of this on a piece of flannel will clean the leaden sink.

982. *Cleaning the Spit, Frying-pan, &c.*—The spit, if one is used, must also be always perfectly cleaned when done with. A little dripping rubbed on a hot frying-pan or gridiron, after cleaning it, will greatly remove the smell and taste of fish; but some persons rub a little salt well about the inside of a hot frying-pan, with a piece of clean paper, which also removes the taste of fish or onions. If these things are put away into damp places, they will soon become unfit for use.

983. *Cabbage-water to be thrown away.*—Always remember that green water, that is, water in which cabbage, or any other vegetable is boiled, should be thrown down the sink the moment the vegetables are out of it, while it is quite hot, and then a pailful of cold water thrown after it, will prevent the unhealthy smell arising from green water; but if it be left till it is cold, or nearly cold before you throw it away, twenty pails of water thrown after it will not prevent the smell.

984. *Scalding Milk vessels.*—Be careful to scald every vessel which has contained milk, having previously let it stand for some time filled with cold water, and never let any other liquid be put into it till it has undergone this process; or whatever you put in will be spoiled.

985. *Cleaning Bread-pans, &c.*—Your pan for keeping bread should be wiped out every day, and scalded once a week; in the same way clean the cheese-pan, or both your bread and cheese will become mouldy and musty; and cheese should always be kept standing on its *rind;* and the rind should be scraped before it is sent to the table.

986. *Keeping Beer.*—You should not let beer stand in a pot or jug; but, if there be any left, put it into a clean bottle, with a tea-spoonful of sugar, and cork it tightly.

987. Never suffer two things to be put together, which would give to each other a disagreeable taste or flavor. Never cut

bread, or butter, or meat, with a knife which has been used for cheese or onions, or the bread, butter, or meat will taste of them. Therefore, you should put the knife which you have used for these purposes, in some place separate from the other knives, and never allow it to be put with them until it has been properly cleaned.

988. *Washing Pickle and Preserve-Jars.*—Whenever pickle or preserve-jars are empty, wash them well in cold water—dry them thoroughly—and put them in a dry place. If you wash pickle or preserve-jars in hot water, it will crack their glazed surface, and make them porous, which spoils them for use, as pickles and preserves require to have the air kept from them.

989. *Cleaning Dish-Covers.*—Dish-covers should always be wiped and polished as soon as they are removed from the table. If this is done whilst they are warm, it will be but little trouble; but, if the steam be allowed to dry on them, you will find much difficulty in getting the tarnish off from the insides. When they are wiped and polished, hang them up in their places immediately.

990. *Of the Paste-Board, Rolling-Pin, &c.*—After making puddings or pastry, wash your rolling-pin and paste-board, without soap, and put it away quite dry. Never use, nor allow others to use, any of the family dinner or tea-service, in the kitchen; as, if one thing be broken, it would perhaps spoil a valuable set; but, always use for cooking, the plates, dishes, and cups, provided for that purpose, which are usually plain, and though of course equally clean, are much less expensive. Keep the bread, cheese, butter, flour, dripping, milk, eggs, and every thing else you may require in cooking, in their distinct and separate places; and be careful to put them away as soon as you have done with them.

991. *Of keeping Hot Water.*—It is highly necessary that you should keep a plentiful supply of hot water, by constantly filling-up the boiler whenever water is taken out of it. A self-acting boiler does not require to be filled, as it fills itself as fast as the water is drawn out; but you must be very careful in frosty weather, to watch whether the water continues to run; for if the water in the pipes becomes frozen, and you allow the

boiler to get empty, the consequence is almost sure to be, that when the frost melts, the cold water comes suddenly into the hot boiler, and splits it. The damage can only be repaired by having a new boiler, which costs, perhaps, from ten to twenty-five dollars; so you may see how important it is that you should prevent so serious an accident.

992. *Of Ventilating Rooms.*—Do not keep your kitchen always hot, and be sure you let in fresh air. If the attention of every master or mistress of a family turned to the ventilation of their dwelling, it would be greatly the means of insuring health. One single ventilator in the uppermost staircase window, would effect a great deal. Great attention ought to be paid to letting the chamber-windows down from the top, frequently through the day, particularly where the family sits.

993. *Of preparing Tea.*—When the tea-time arrives, it is your duty to cut the bread-and-butter, or make the toast. You should never send up more than one or two rounds of buttered toast at once, according to the number to partake of it, that it may be hot and fresh when it is handed round. You must cut off the crusts as close as you can, after it is made and buttered. If a tea-urn is used, it will be your duty to get it ready in time, and put in the boiling water when it is wanted: you must also remember to make the urn-iron red-hot, by putting it into the kitchen fire after dinner, or at least for an hour before tea-time. When you use the tea-urn, be careful to do as follows:—

Take care that the water boils, and that the urn-heater is red-hot; then, in the first place, dust the urn, and put the boiling water into it, before you put in the heater; and, to prevent giving an unpleasant taste, or spoiling the boiling water by dust, or particles of the hot iron, (which may rub off the heater as you are putting it into its place,) be careful to put on the round rim, or ring, before you put in the red-hot heater; and be sure, also, to avoid pouring any water into the place where the heater goes; otherwise, when the iron is put in, the steam may fly up in your face, and scald you seriously. Taking the urn up into the parlor or drawing-room, is the housemaid's business; and she should not forget the rug to place it on, or the heat issuing from it will certainly spoil the polished table: and it is also the housemaid's business to empty the urn when done with which she must be careful to turn upside down, to drain.

994. *Taking care of the Fire.*—The cookmaid's last duties of the day, are—to take great care that the kitchen fire is so nearly out, as to be quite safe; and that nothing is left hanging before the fire-place; then she must see that the kitchen windows and shutters are fastened, and lock and bolt all the doors and windows that have not been fastened earlier in the evening.

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995. *Cleaning Knives, Forks, &c.*—If a lad or man-servant is kept, he cleans the steel knives and forks, as well as the shoes and boots; and also brushes the gentlemen's clothes: but, in that large number of families who keep no boy nor man, it becomes the business of the cookmaid to clean the steel knives and forks. [See the best manner of preparing the knife-board, &c., in another part of this book.]

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996. *Care of Table-Knives.*—Be careful to keep a good edge to your knives, and do your utmost to preserve them from notches, especially the carving-knife, otherwise a hot joint may get cold while the knife has to be sent from table to be sharpened. A keen edge may be given by cleaning alone, if care be taken, in passing the knife from you, not to let the edge lean on the board, but, in drawing it towards you, to lean with a little pressure on the edge.

The knives which are not in daily use, should, after being wiped with a dry cloth, be put into the cases, or wrapped in very dry brown paper, and so placed as not to touch each other, the same way as the cutlers keep them. Great care should be taken that the place in which they are put is perfectly dry—as all articles made of steel have a tendency to contract rust, that metal having the property of extracting damp from the atmosphere, or from anything moist near to it. If the ivory handles of the knives and forks get stained, or become discolored, mix a table-spoonful of water with a few drops of spirits of salt—rub it well on with a little bit of clean rag—wash it off with cold water—and wipe them perfectly dry.

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997. *Of cleaning Boots and Shoes.*—Where no man-servant is kept, the cook or housemaid must clean the shoes and boots. First, scrape the dirt off the shoe with a wooden knife, or piece of firewood, cut to something of an edge. When the worst of the dirt is thus taken off, use your hard brush to remove the remainder, or the leather will never be bright. Stir the

blacking with a short fine sponge, tied round one end of it; and, with this, put some blacking on the blacking-brush, and black the shoe all over; use the polishing-brush directly, while it remains damp, and rub it lightly, yet briskly, till the shoe shines perfectly bright. When boots or shoes are laid down before a fire to dry, let them be placed at a good distance, or the leather will harden and shrink, and the shoes get out of shape.

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998. *Of cleaning Candlesticks.*—It is the duty of the cook-maid to clean the chamber candlesticks used by the servants, and the candlesticks belonging to the kitchen (those used by the family in the parlors, drawing-rooms, and best bed-rooms, belong to the housemaid's work). Before you commence, have a sheet of thick brown paper laid on a table, or on whatever else you intend to clean them, to save making a grease. Then scrape off the grease on to the brown paper with a piece of fire-wood, and put all you scrape off into your kitchen-stuff. The candlesticks should then be put, upside down, in the deepest candlestick, at a little distance from the fire, so that all the grease may melt, and drain into one. This grease should also be put into the kitchen stuff, and the candlesticks wiped perfectly clean with the candlestick-rag, or with a cloth kept for that purpose. The polishing should be done with a little dry rotten-stone, or dry whiting, put on a leather. The cookmaid has usually a candle-box provided for her, into which she puts all the pieces of candle, for kitchen use. This box should be lined with white paper, which should be frequently renewed, or the candles will become very dirty, and be unpleasant to burn, from bits of the snuff sticking to them. Always set the candles in the candlesticks in the fore part of the day, that they be ready when wanted, and that all the dirty work may be done before cooking commences.

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999. *Washing-Day.*—If the washing be done at home, the cookmaid will have to assist; and the changes of linen, and the kitchen things, usually fall to her share. She generally folds and irons all but the fine things and the dresses. It is usual also for her to fill the copper; and for the housemaid to sort the clothes ready for the wash. Much time as well as labor will be saved by preparing the clothes for the wash the day before the washing-day; that is by putting them in soak, the

fine things and coarse things in different tubs, after having examined, and rubbed with soap such places as are most dirty, such as the collars and wristbands of shirts, the parts of table cloths which are most soiled, and any place in the different articles which would require more than usual rubbing. Indeed, everything should be prepared the day before; the copper filled with soft water, the tubs rinsed and wiped, inside and out (taking care that they do not leak). The best way to prevent the tubs from leaking, is to turn them bottom upwards after using, and keep the bottom filled with water, without which they will not only leak but fall to pieces, in summer weather.

1000. *Care of Clothes-lines, &c.*—Clothes-lines, when done with, should be wiped quite clean, and put away dry in a bag, for future use, or they will dirty the clothes. A bag should also be kept for the pegs; and both bags should be kept in a dry place.

1001. *Folding and Mangling.*—Before you begin to fold the clothes, let the board be quite clean and dry, and a clean linen cloth placed upon it. Separate those things which are to be mangled, and those which are for rough-drying. Turn shirts, shifts, night-gowns, pillow-cases, petticoats, &c., the right side outwards; fold them very smoothly, and sprinkle them to a proper dampness for ironing. If the collars, wristbands, and frills, or pleated front of a shirt, be dipped in a little starch, then into water, and rolled up without squeezing, it will bring the whole of the shirt to a proper dampness, when it has lain for some time.

The articles usually mangled are, sheets, towels, table-linen, pillow-cases, and other straight things; but if there be any folds, they will not look well when mangled. Pearl-buttons will break in the mangle, and cut the cloth, therefore, all things with buttons, and even pillow-cases, if they have buttons, should not be mangled.

1002. *Of Ironing.*—The ironing-blanket should be made of a thick kind of flannel, called swan's-skin, and a coarse cloth should be spread between it and the board. When you are ironing, be careful to try your iron first upon some coarse article, or one of little value, for fear of its soiling or singeing the better clothes. Let the heat be in proportion to the article

you are about to iron, and be sure to make every part perfectly smooth.

After they are ironed, the things should be hung upon the horse to air. The cookmaid is now done with the washing, as it is the housemaid's business to air them, and to place them in the drawers, when aired; but in many families, the putting of them away is done by the mistress of the house, or by some of the young ladies.

In ironing the skirts of dresses, it is best and most proper to have a board about thirteen inches wide and four feet long, on which fasten, with tapes, an ironing-blanket; place one end of it on a table, and the other end on the dresser, or something that is firm, of the same height as the table. In using this board, pass it through the skirt, taking care that the wet part of the dress falls into a clothes-basket, or a cloth, which you must first put on the floor, under the middle of the board, to save the skirt from being soiled; and turn the skirt of the dress round the board, as you iron it.

1003. *Save the Rags.*—All rags of cotton or linen should be saved by the cookmaid; they should never be thrown away because they are not clean. Mop-rags, lamp-rags, all should be washed, dried and put in the rag-bag. There is no need of expending soap on them; just boil them out in the suds after you have done washing.

Linen rags should be carefully saved; for they are extremely useful in sickness. If they have become dirty and worn by cleaning silver, &c., wash them, and scrape them into lint.

PART VI.

SOME HINTS ABOUT AGRICULTURE, GARDENING, DOMESTIC ANIMALS, ETC.

Of Soil, Hay and the Grains—Of Vegetables—Destroying Ferrets, Reptiles, Rats and other Vermin—Flowers, Fruits, Trees—Timber—Buildings.

1004. *Advantage of Knowing something about Agriculture.*—In a work designed, chiefly, for women, it may seem odd to find farming treated of, as though they needed such information. But while far the greater portion of American men* are tillers of the soil, it would be questioning the good sense as well as affection of their wives and daughters to suppose them indifferent to such pursuits.

The husband will work with more pleasure, when feeling his wife takes an interest in his employments. The daughter of a farmer should be ready to read her father's books and papers on agriculture, whenever he desires it, and assist in the garden, orchard, and among domestic animals, when such cases are suitable for her.

So, trusting you have a garden-hoe and pruning-knife for your own use, and can assist in transplanting flowers and shrubs, I shall give rules for these, and also a few hints on other matters connected with country life and the economy of farming. These rules are selected, chiefly, from British authorities. England is famous for its agricultural science and modes of gardening, and planting trees. Such knowledge and taste are much needed in our land. But be careful, fair girl and comely matron, and do not expose your health or injure your personal appearance while *helping* in out-door work. A *sun-bonnet or broad-brimmed straw hat and thick gloves* should always be worn, when engaged in such employments.

* The rural population of America is now over twenty millions.

1005. *Important Fact in Agriculture.*—Whatever may be the nature of the soil, or of the crop cultivated, it should always be the aim of the farmer to grow full crops. Partial and sometimes extensive failures will even then but too often occur; but to neglect making the best known preparations, or only to prepare for half a crop, has a direct tendency to unprofitable farming.

1006. *Manure for Clover.*—Some farmers make it a rule to spread about fifty bushels per acre of ashes over their clover in March, which they find, from long experience, to be a good manure for this grass. Wood-ashes will be useful on any soil; coal-ashes chiefly on stiff clays. On the stiff soils of some parts of Buckinghamshire, ashes of all kinds are much esteemed, and have risen to a high price.

1007. *How to preserve Manure.*—Put it in heaps, and cover it with earth two feet deep. Never leave manure in the barn yard; put it all, year by year, on your land.

1008. *Dr. Taylor's Easy Method of ascertaining the Qualities of Marl, Lime Stones, or Quick Lime, for the purposes of Agriculture.*—This was a communication by Dr. Taylor to the Manchester Agricultural Society; the general use of marl and lime as manures, having prompted him to point out the importance of an easy and certain method of determining the qualities of different earths and stones, and ascertaining the quantity of calcareous earth in their composition; their value, in agriculture, commonly increasing in proportion to the greater quantity of it which they contain. The process recommended is thus described:—The marl or stone being dried, and reduced to powder, put half an ounce of it into a half pint glass, pouring in clear water till the glass is half full; then gradually add a small quantity of strong marine acid, commonly called spirit of salt, and stir the mixture well together. As soon as the effervescence thus excited subsides, add a little more marine acid; thus continuing the operation while any of the earthy matter appears to dissolve; and till the liquor, after being well stirred and allowed to stand for half an hour, appears sensibly acid to the taste. When the mixture has subsided, if the liquor above it be colorless, that marl or lime-stone is the best which leaves the least in quantity of sediment or deposit in the bot-

tom of the glass. This experiment is sufficient to determine which of the samples tried is the most proper for the uses of agriculture: as pure calcareous earth or lime, which is the earth useful in agriculture, will be entirely dissolved; but clay or sand will not be sensibly acted on by the acid. Where great accuracy is required in determining the experiment, lay a soft spongy paper, of which the weight is exactly taken, in an earthen colander—for no metallic vessel, or implement for stirring, &c., must be used in any part of the process—and, pouring the saturated mixture of earth and acid on it, let all the liquor filter through, then pour a little clear water over the earthy matter remaining on the filter; and, when that water has also filtered through, dry the paper with the earthy matter on it which remains undissolved, when the deficiency found, on weighing them, from their original weight, will discover what portion of the marle or lime has been dissolved in the acid. What quantity of earthy matter has been dissolved may be made evident to the sight, by gradually adding, to the liquor which has been filtered through the paper, a clear solution of pearl-ashes, or ashes of burnt wood; this will occasion a precipitation of the contained lime or calcareous earth to the bottom of the vessel, which precipitate must be dried and weighed.

1009. *To preserve Seeds, when sown, from Vermin.*—Steep the grain or seed three or four hours, or a sufficient time for it to penetrate the skin, or husk, in a strong solution of liver of sulphur.

1010. *Striped Grass recommended for Hay.*—The Indian striped or riband grass, which is cultivated in gardens, would answer admirably for hay. In rich grounds plants are frequently four feet high; what a burden of hay would a field so cropped produce! Cattle are exceedingly fond of it; the seeds are easily saved, so that a person might soon have enough for a rood, and from that save again and again, for as many acres as he might choose. It is probable that the crop might be much too large to be made on the field where it grew; but if so, it would be worth while to carry part into another field.

1011. *When to cut Rye-grass for Hay.*—Rye-grass, if mown for hay, should be cut when in blossom, and not green. The

hay made from it does not heat or sweat so much, and is very good for horses, but not for sheep and cattle. If it is suffered to stand too long before it is cut, the seeds rob the plants of their juices, and leave it no better than wheat or rye-straw.

1012. *To prevent the Smut in Wheat.*—The means (to prevent smut) are simple; and no other than immersing the seed in pure water, and repeatedly scouring it therein, just before it is sown or dibbled in. Whether well, spring, or river water be used, is indifferent; but repeated stirring and change of water is essential to remove the possible particles of infection that may have imperceptibly adhered to the seed; thus purified, the subsequent crop will be perfect in itself, and seed successively so likewise, if there be no adjacent fields from whence this contamination may be wafted.

The addition of any alkaline or earthy salt, by increasing the specific gravity of the water, is of advantage in floating off the unsound grains, and after the seed is washed, it should be dried immediately by rubbing it with newly slaked lime.

1013. *Fertilizing Steeps for Turnips, Wheat, or Barley.*—Steep turnip-seed twelve hours in train oil, which strain through a fine seive, and immediately thoroughly mix the quantity of seed you would wish to sow on an acre, with three bushels of dry loamy earth, finely sifted, which drill (or sow) as soon as possible; and when the plants begin to appear, throw a small quantity of soot over them.

1014. *Steep for Wheat, Barley, or other Grain.*—Put a peck and a half of wood-ashes, and a peck of unslaked lime, into a tub that will hold forty gallons; then add as much water as will slake the lime, and render the mixture into the consistence of stiff mortar. In this state it should remain ten or twelve hours; then add as much water as will reduce the mortar to a pulp, by thorough stirring. In this state fill the tub with water, and occasionally keep stirring for two or three days. After which, draw off the clear lye into an open vessel, and gradually put the grain into it: skim off the light grains; and, after the corn has been steeped three hours, spread it on a clean floor to dry, when it will be sufficiently prepared for drilling or sowing. The lye will retain its full virtue, and may be repeatedly used.

Remark.—It has been doubted whether steeps are of any use, except so far as they facilitate the separation of the light grains, and wash off the seeds of the parasite plants, which are thought to occasion *smut*, &c. In the best-cultivated parts of Scotland, seed-wheat is steeped in stale urine, or in a brine made with common salt, which, by increasing the specific gravity of the water, floats the unsound grains. The seed is well washed, and then dried, by mixing it with fresh slaked lime, and rubbing it briskly with a wooden shovel. The quick-lime and rubbing is thought to assist in cleansing the seed; but, independent of that, the mere drying the seed quickly is convenient.

1015. *To sow Wheat to advantage, without laying on Manure.*—It has been found expedient sometimes to sow wheat without laying on any manure; and, in the beginning of February, to collect twenty bushels of lime, unslaked, for every acre, and forty bushels of sand, or the rubbish of a brick-kiln; then, about the end of the month, to slake the lime, which doubles the measure, and mix it well with the sand, and, immediately afterwards, to scatter it by way of top-dressing over the green wheat. As rain generally succeeds, it is soon washed down to the roots of the plants, and gives them a vigor and strength, which, to those who never made the experiment, is astonishing. The lime, sand, and rubbish, are particularly useful in breaking the tenacity of stiff clays. In a clay soil, where coal was very cheap, the clay was slightly burned in the field, and spread over the surface, as the cheapest way of subduing the coarseness and stiffness of the soil. The refuse or rubbish from mines in the neighborhood has been burned, and applied with advantage on the same principle.

1016. *Approved method of sowing Wheat on narrow ridges.*—The seedsman should walk up one side of the bed and down the other side, always keeping his face, and the hand with which he sows, towards the bed he is sowing; his eye must be continually on the edge of the opposite interfurrow, and deliver his seed principally on the side of the bed next to it: as he returns, the sides will of course be reversed, and the beds become evenly seeded.

1017. *Great utility of sowing Buckwheat.*—In light lands, buckwheat may be raised to great advantage, as a lucrative

crop. When green, it is a fine feed for milch-kine; and when ploughed, is a fine preparation for the land. It fattens pigs with great economy, and, passed through the mill, is, with carrot, a capital feed for work-horses. The seed is excellent food for poultry, and, when ground, makes good bread.

1018 *To keep Crows from Corn.*—Take a quart of train oil, and as much turpentine and bruised gunpowder; boil them together, and, when hot, dip pieces of rags in the mixture, and fix them on sticks in the field. About four are sufficient for an acre of corn.

1019. *Proper Soil for the Culture of Turnips.*—Sandy loams, in good heart, are most favorable to their growth, though they will thrive well on strong loams, if they are not wet; but, on clayey, thin, or wet soils, they are not worth cultivating; for, though a good crop may be raised on such ground, when well prepared and dunged, more damage is done by taking off the turnips in winter, in poaching the soil, than the value of the crop will repay.

1020. *Instructions for raising Potatoes to advantage.*—The earth should be dug twelve inches deep, if the soil will allow it; after this, a hole should be opened about six inches deep, and horse-dung, or long-litter, should be put therein, about three inches thick; this hole should not be more than twelve inches diameter. Upon this dung or litter, a potato should be planted whole, upon which a little more dung should be shaken, and then the earth must be put thereon. In like manner, the whole plot of ground must be planted, taking care that the potatoes be at least sixteen inches apart. When the young shoots make their appearance, they should have fresh mould drawn round them with a hoe; and if the tender shoots are covered, it will prevent the frost from injuring them: they should again be earthed when the shoots make a second appearance, but not covered, as, in all probability, the season will be less severe.

A plentiful supply of mould should be given them; and the person who performs this business should never tread upon the plant, or the hillock that is raised round it, as the lighter the earth is, the more room the potato will have to expand.

A gentleman obtained from a single root, thus planted, very near forty pounds' weight of large potatoes; and, from almost

every other root upon the same plot of ground, from fifteen to twenty pounds' weight; and, except the soil be stony or gravelly, ten pounds, or half a peck, of potatoes, may almost be obtained from each root, by pursuing the foregoing method.

1021. *Use of the Dandelion.*—This is an excellent salad, and a good green. Where it grows as a weed, cover it early in the spring, with rotten tan, or decayed leaves; it will soon come up.

1022. *Preparations for Carrots and other winged Seeds.*—Take two bushels of dry loamy earth, finely sifted; to which add one bushel of bran, and a sufficient quantity of carrot seed, cleaned from stalks, and well rubbed between the hands; all which thoroughly mix together, and drill (or sow). The carrot seed will stick to the bran, which, with the earth, will be regularly discharged.

1023. *To raise a Salad quickly.*—Steep lettuce-seed, mustard, cresses, &c., in aqua vitæ. Mix a little pigeon's dung with some mould, and powdered slacked lime. In forty-eight hours the salad will be produced.

1024. *Important Discovery relative to the Preservation of Grain.*—To preserve rye and secure it from insects and rats, nothing more is necessary than not to winnow it after it is thrashed, but merely separate it from the straw, and to stow it in the granaries, mixed with the chaff. In this state it has been kept for more than three years without experiencing the smallest alteration, and even without the necessity of being turned to preserve it from humidity and fermentation. Rats and mice may be prevented from entering the barn, by putting some wild vine or hedge plants upon the heaps; the smell of the wood is so offensive to these animals, that they will not approach it. The experiment has not yet been made with wheat and other kinds of grain, but they may probably be preserved in the chaff with equal advantage. It must however be observed, that the husks and corns of rye are different from most other grain. It has been sown near houses where many poultry were kept, for the purpose of bringing up a crop of grass, because the poultry do not destroy it, as they would have done wheat, oats, or even barley in the same situation.

1025. *To preserve Grain in Sacks.*—Provide a reed cane, or other hollow stick, made so by gluing together two grooved sticks; let it be about three feet nine inches long; and that it may be easier thrust down to the bottom of the corn in the sack, its end to be made to taper to a point, by a wooden plug that is fixed in, and stops the orifice. About one hundred and fifty small holes, of one-eighth of an inch in diameter, are to be bored on all sides of the stick, from its bottom for about two feet ten inches of its length; but no nearer to the surface of the corn, lest too great a proportion of the air should escape there. By winding a packthread in a spiral form round the stick, the boring of the holes may be the better regulated, so as to have them about half an inch distant towards the bottom, but gradually at wider distances, so as to be an inch asunder at the upper part; by which means the lower part of the corn will have its due proportion of fresh air. To the top of the stick let there be fixed a leathern pipe ten inches long; which pipe is to be distended by two yards of spiral wire, coiled up within it. At the upper part of the pipe is fixed a taper wooden faucet, into which the nose of a common household bellows is to be put, in order to ventilate the corn.

If wheat, when first put into sacks, be thus aired, every other or third day, for ten or fifteen minutes, its damp sweats which would hurt it, will, in a few weeks, be carried off to such a degree, that it will afterwards keep sweet with very little airing, as has been found by experience.

By the same means other kinds of seeds, as well as wheat, may be kept sweet either in sacks or small bins.

1026. *To preserve Oats from being musty.*—Richard Fermor, Esq. of Tusmore, in Oxfordshire, has in his stable a contrivance to let oats down from a loft out of a vessel, like the hopper of a mill, whence they fall into a square pipe, let into a wall, about four inches diagonal, which comes into a cupboard set into a wall, but with its end so near the bottom, that there shall never be above a desirable quantity in the cup-board at a time, which being taken away, another parcel succeeds; by this motion the oats are kept constantly sweet (the taking away one gallon moving the whole above), which, when laid up otherwise in great quantities, frequently grow musty.

1027. *Easy Method of destroying Mites or Weevils in Granaries.*—A very sagacious farmer has succeeded in destroying

weevils, by a very easy process. In the month of June, when his granaries were all empty, he collected great quantities of the largest sized ants, and scattered them about the places infested with the weevils. The ants immediately fell upon and devoured every one of them ; nor have any weevils since that time been seen on his premises.

Remark.—The large, or wood-ant, feeds entirely on animal substances; of course it would not destroy the corn.

1028. *To preserve Carrots, Parsnips, and Beets, all the Winter.*—A little before the frost sets in, draw your beets or parsnips out of the ground, and lay them in the house, burying their roots in sand to the neck of the plant, and ranging them one by another in a shelving position; then another bed of sand, and another of beets, and continue this order to the last. By pursuing this method, they will keep very fresh. When they are wanted for use, draw them as they stand, not out of the middle or sides.

1029. *To preserve Turnips from Frost.*—The best way is to stack them up in straw in the following manner :—One load of any sort of dry straw is sufficient for an acre of fifty tons' weight. Pull up the turnips, top and tail them, then throw them in a sort of windrow, and let them lie a few days to dry.

First, lay a layer of straw next the ground, and upon it a layer of turnips about half a yard thick; then another layer of straw ; so go on alternately with a layer of straw and a layer of turnips; every layer grows narrower, till it comes to a point at the top, like a sugar-loaf. The last layer must be straw, which serves to keep all dry. You must observe always when you have laid a layer of turnips, to stroke or lap over the ends of the under layer of straw, in order to keep them close or from tumbling out. The heap should be as large as a hay-cock; the tops may be given to sheep or cattle as they are cut off.

1030. *Another.*—Turnips placed in layers, though not thick, have been found, after a few weeks, to rot. In some places the following method is adopted. Lay the turnips close together in a single layer, on a grass field, near the farmyard, and scatter some straw and branches of trees over them; this will preserve them from sudden alternations of frost and

thaw. They keep as well as stored turnips can do. The bare grass is of no value in winter, and may rather perhaps receive some benefit from the shelter of the turnip. An immense quantity may thus be stored on a small extent of grass ground. It is chiefly useful for small farmers, in soils unfit for the turnip, but who are forced to raise it for milk-cows, or to support, in the winter, the sheep they feed in the summer on the commons, and which they keep, perhaps, principally in the night, on the fields they have no other means of manuring. But it may be useful, even on proper turnip soils, to save the latter part of the crop from the sudden frosts and sunshine in the spring, or in an open winter, which rot so great a portion of it; perhaps a fourth or third part of what is then on the ground.

1031. *The good effects of Elder in preserving Plants from Insects and Flies.*—1. For preventing cabbage and cauliflower plants from being devoured and damaged by caterpillars. 2. For preventing blights, and their effects on fruit-trees. 3. For preserving corn from yellow flies and other insects. 4. For securing turnips from the ravages of flies. The dwarf elder appears to exhale a much more fetid smell than the common elder, and therefore should be preferred.

1032. *The use of Sulphur in destroying Insects on Plants, and its Benefit for Vegetation.*—Tie up some flower of sulphur in a piece of muslin or fine linen, and with this the leaves of young shoots of plants should be dusted; or it may be thrown on them by means of a common swans'-down puff, or even by a dredging-box.

Fresh assurances have repeatedly been received of the powerful influence of sulphur against the whole tribe of insects and worms which infest and prey on vegetables. Sulphur has also been found to promote the health of plants, on which it was sprinkled; and that peach-trees, in particular, were remarkably improved by it, and seemed to absorb it. It has likewise been observed, that the verdure, and other healthful appearances, were perceptibly increased; for the quantity of new shoots and leaves formed subsequently to the operation, and having no sulphur on their surfaces, served as a kind of comparative index, and pointed out distinctly the accumulation of health.

1033. *Method of stopping the Ravages of the Caterpillars from Shrubs, Plants, and Vegetables.*—Take a chafing-dish, with

lighted charcoal, and place it under the branches of the tree, or bush, whereon are the caterpillars; then throw a little brimstone on the coals. The vapor of the sulphur, which is mortal to these insects, and the suffocating fixed air arising from the charcoal, will not only destroy all that are on the tree, but will effectually prevent the shrubs from being, that season, infested with them. A pound of sulphur will clear as many trees as grow on several acres.

Another method of driving these insects off fruit-trees, is to boil together a quantity of rue, wormwood, and common tobacco (of each equal parts), in common water. The liquor should be very strong. Sprinkle this on the leaves and young branches every morning and evening during the time the fruit is ripening.

In the Economical Journal of France, the following method of guarding cabbages from the depredations of caterpillars is stated to be infallible, and may, perhaps, be equally serviceable against those which infest other vegetables. Sow with hemp all the borders of the ground wherein the cabbage is planted; and, although the neighborhood be infested with caterpillars, the space inclosed by the hemp will be perfectly free, and not one of these vermin will approach it.

1034. *To prevent the Increase of Pismires in Grass Lands newly laid down.*—Make a strong decoction of walnut-tree leaves, and after opening several of the pismires' sandy habitations, pour upon them a quantity of the liquor, just sufficient to fill the hollow of each heap: after the middle of it has been scooped, throw in the contents from the sides, and press down the whole mass with the foot, till it becomes level with the rest of the field. This, if not found effectual at first, must be repeated a second or a third time, when they infallibly will be destroyed.

1035. *To prevent the Fly in Turnips.*—From experiments lately made, it has been ascertained that lime sown by hand, or distributed by a machine, is an infallible protection to turnips against the ravages of this destructive insect. It should be applied as soon as the turnips come up, and in the same daily rotation in which they were sown. The lime should be slacked immediately before it is used, if the air be not sufficiently moist to render that operation unnecessary.

1036. *To prevent Mice from destroying early sown Peas.*—The tops of furze, or whins, chopped and thrown into the drills, and thus covered up, (by goading them in their attempt to scratch,) is an effectual preventive. Sea-sand, stewed pretty thick upon the surface, has the same effect. It gets into their ears, and is troublesome.

1037. *Another.*—In the gardens in Devonshire, a simple trap is used to destroy mice. A common brick, or flat stone, is set on one end, inclined at an angle of about forty-five degrees. Two strings, tied to a cracked stick, stuck in the ground, with loops at the ends of the strings, are brought round to the middle of the under part of the brick, and one loop being put into the other, a pea or bean, or any other bait, makes the string fast, so as to support the brick. When the animal removes the bait, the loops separate, and the brick, by falling, smothers the animal.

1038. *To Destroy Beetles.*—Take some small lumps of unslaked lime, and put into the chinks or holes from which they issue, it will effectually destroy them; or it may be scattered on the ground, if they are more numerous than in their holes.

1039. *Another Method.*—The simplest and most effectual way of destroying beetles is by means of red wafers. As it has become usual to substitute vermilion for red lead in the composition of wafers, it will be necessary to ask particularly for such as have been made with red lead. Strew these in the neighborhood of the crevices from which these insects issue, and their future incursions will be speedily prevented. Cockroaches may be destroyed by the same means.

1040. *For Destroying Bugs and Worms in Wood.*—An eminent physician has discovered that by rubbing wood with a solution of vitriol, insects and bugs are prevented from harboring therein. When the strength of this remedy is required to be increased, there need only be boiled some coloquintida apples in water, in which, afterwards, vitriol is dissolved, and the bedstead, with the wood about them, and the wainscoting, being anointed with the liquor, will be ever after clear of worms or bugs. The wall may be likewise rubbed with the composition, and some of it may be dropped into the holes

where these insects are suspected to be harbored. As to the walls, they require only to be washed over with the vitriol water.

1041. *To Destroy Insects on Wall Fruit Trees.*—Take an old tin watering-pan, or any similar vessel, and make a charcoal fire in it; add a tube or pipe, made of either tin, leather, or stiff paper, to the spout, which may be of any sufficient length; then strew some brimstone, tobacco-dust, fine shreds of leather, &c., upon the fire, in the pan, and cover the top; having a pair of bellows ready, hold the wind-flap over the tube or pipe to receive the smoke, which it will do very effectually when you use the bellows. By this means the suffocating vapor may be directed through the bellows to any part of the tree with the greatest ease and facility, and the tree soon cleared of all vermin.

1042. *To Destroy the Insect which attacks the Apple Tree, commonly called the White Blight, or American Blight.*—To a strong decoction of the digitalis or foxglove, add a sufficient quantity of fresh cow-dung, to give it such a consistence as may enable you to apply it with a painters' brush to those parts of the bark of the tree, which afford a harbor for this destructive insect. The insect is generally destroyed by the first application, though in some instances it may be necessary to repeat it. It has been remarked that the insect never returns in future years to those parts of the tree which have been thus treated.

1043. *For Destroying Caterpillars on Gooseberry Bushes.*—Take one Scots pint (two English quarts) of tobacco liquor (which may be made, where it cannot be purchased, by infusing any kind of tobacco in water till all the strength be extracted) which the manufacturers of tobacco generally sell for destroying bugs, and mix them with about one ounce of alum; and when the alum is sufficiently dissolved, put this mixture into a plate, or other vessel, wide and long enough to admit of a brush, like a weaver's brush, being dipped into it; and as early in the season as you can perceive the leaves of the bushes to be in the least eaten, or the eggs upon the leaves (which generally happens about the end of May), and which will be found in great numbers on the veins of the leaves on their under side; you are then to take the preparation, or liquor,

and after dipping the brush into it, and holding the brush towards the under side of the bush, which is to be raised and supported by the hands of another person; and by drawing your hand gently over the hairs of the brush, the above liquid is sprinkled, and falls in small drops on the leaves; the consequence of which is, if the eggs are there, they never come forward; and if they have already generated worms, in a minute or two after the liquor touches them, they either die or sicken, so as to fall off the bush; at least they do so upon giving it a little shake. If, upon their thus falling off, they shall not appear completely dead, the bush should be held up, and either a little boiling water from a watering-pot thrown over them, or a bruise given them by a spade or shovel; or the earth, where they lie, turned over with a hoe. This preparation does not in the least injure the bushes.

1044. *To Preserve Flowers, Leaves, and Fruit, from Caterpillars.*—These depredators are destroyed by oils, which close the lateral pores by which they breathe. For this purpose it is advised, that on the approach of spring, a cloth, dipped in train oil, be laid on such parts of the tree in which there is the least appearance of them.

1045. *Method to destroy or drive away Earth Worms, and other Insects, hurtful to Fields and Gardens.*—Three parts of quick-lime, newly made, and two parts of soap-boilers' ley or potash dissolved in water, will produce a somewhat milky liquor sufficiently caustic, and highly hostile and poisonous to earth-worms and other small animals; for as soon as it touches any part of their bodies, it occasions in them violent symptoms of great uneasiness. If this liquor be poured into those holes, in which the earth-worms reside under ground, they immediately throw themselves out as if driven by some force, and, after various contortions, languish and die. If the leaves of plants or fruit-trees, frequented by the voracious caterpillars, which are so destructive to them, be sprinkled over with this liquor, these insects suddenly contract their bodies and drop to the ground. For, though nature has defended them tolerably well by their hairy skins, from any thing that might injure their delicate bodies; yet, as soon as they touch with their feet or mouths the leaves which have been moistened by this liquor, they become, as it were, stupefied, instantly contract themselves, and fall down.

1046. *To destroy Earwigs and Wood Lice.*—A very simple way of ensnaring them, and by which they may be taken alive in great quantities, is to place four inch-cuts of reeds, bean-haulm, or strong wheat-straw among the branches, and also lay a number on the ground, at the bottom of the wall. In these the insects take refuge at day-break, as they depredate chiefly in the night; and any time through the day they may be blown into a bottle with a little water in it, and so be drowned. Or, a cheaper way is to burn the straw, and scatter fresh on the ground.

1047. *To destroy Fleas on Dogs.*—Rub the animal, when out of the house, with the common Scotch snuff, except the nose and eyes. Rub the powder well into the roots of the hair. Clear lime-water destroys the whitish flea-worm without injuring the skin or hair. Oil of turpentine will likewise do so; but if there be any manginess, or the skin be broken, it will give the animal much pain.

1048. *To clear Gardens of Vermin, by Ducks.*—Ducks are excellent vermin-pickers, whether of caterpillars (such as are within their reach), slugs, snails, and others, and ought to be turned into the garden one or two days every week throughout the season. Never keep them longer in than two or three hours at a time, else they become indolent. While here, they should have a little water set down to them, if there be no pond or stream in the garden.

Never turn them into the garden in the time of heavy rains, or in continued wet weather, as in that case, and particularly if the soil be stiff, they patter and harden the surface, to the great injury of small crops and rising seeds.

1049. *The use of Garlic against Moles, Grubs, and Snails.*—Moles are such enemies to the smell of garlic, that, in order to get rid of these troublesome and destructive guests, it is sufficient to introduce a few heads of garlic into their subterraneous walks. It is likewise employed with success against grubs and snails.

1050. *To prevent the destruction of Field Turnips by Slugs.*—A few years since, a considerable farmer, near Bath, observing the turnips in one of his fields strongly attacked by something,

discovered, by accident, that the enemy was really a slug; and immediately prevented farther damage by well rolling the whole field, by night, which killed all the slugs.

N. B. This was the grand secret which was advertised for two thousand subscribers, at one guinea each, by W. Vagg, *for destroying the fly* in turnips—which it will *not* do!

1051. *Method of destroying Insects on Fruit Trees.*—Make a strong decoction of tobacco, and the tender shoots of elder, by pouring boiling water on them; then sprinkle your trees with the same (cold) twice a week, for two or three weeks, with a small hearth-brush, which will effectually destroy the insects, and the leaves will retain their verdure until the fall of the year.

If used early, as soon as the bud unfolds itself, it will probably prevent the fly. The effect of tobacco has been long known, and elder-water frequently sprinkled on honeysuckles and roses, has been found to prevent insects from lodging on them.

The quantity to be made use of, is one ounce of tobacco to one gallon of water, with about two handfuls of elder. You may, however, make it as strong as you please, it being perfectly innocent to the plants.

1052. *To destroy Insects prejudicial to Apple-Trees.*—To one hundred gallons of human urine, and one bushel of lime, add cow-dung to bring it to the consistence of paint. With this composition anoint the trees. The month of March is the proper season for applying it. If the white efflorescence-like substance in which the insects are lodged, has made its appearance, it should previously be brushed off.

1053. *To destroy wasps on Fruit-Trees.*—Wasps, about the month of July, will begin to swarm about the early fruits; and for their destruction, phials should be hung about the branches, half-filled with honey and water, or with sugar and small-beer. These should be emptied and replaced once in two or three days, otherwise they do not take so well—these little animals being extremely sagacious, and disliking the appearance of their own species, when dead.

1054. *Another.*—Winter is the proper season to apply the following solution. The juices are then determined to the root.

Soft soap, two pounds; leaf or roll tobacco, one pound; nux-vomica, two ounces; and turpentine, half an English gill: boil them in eight English gallons of soft or river water, to six; and use it milk-warm.

Unnail or untie all the branches from the wall or trellis; brush every part of the tree clean with a soft brush, such as is used for painting; then, with a sponge, carefully anoint every branch, root, and bud; and be sure rub it well into every joint, hole, and angle, as it is there the eggs or larvæ of the insects are chiefly lodged. The rails, spars, &c., of the espalier or trellis, should also be anointed as above.

This operation should be repeated every winter, some time between the fall of the leaf and the first of February, as may be most convenient. The solution is effectually destructive to all kinds of insects, their eggs or larvæ.

1055. *To kill Reptiles.*—Twelve ounces of quick-lime in powder, two ounces of Scotch snuff, two ounces of basket salt, two ounces of sulphur vivum, dissolved in ten gallons of water, and thrown on the insects, either in the liquid or powder, will destroy them.

1056. *To prevent Slugs from getting into Fruit-Trees.*—If the trees are standards, tie a coarse horse-hair rope about them, two or three feet from the ground. If they are against the wall, nail a narrow slip of coarse horse-hair cloth against the wall, about half a foot from the ground, and they will never get over it; for if they attempt it, it will kill them, as their bellies are soft, and the horse-hair will wound them.

1057. *To destroy Snails.*—Snails are great enemies to wall-fruit; and any dewy morning you may easily find where they most delight to breed; but the best way is to find out their haunts in a hard winter, and then destroy them: they lie much in holes of walls, under thorns, behind old trees or old and close hedges. If you pluck not the fruit they have begun to devour, but let it alone, they will finish their repast on this, before they begin another.

1058. *To destroy the Red Spider, so troublesome in dry seasons.*—The red spider makes its appearance in hot, dry weather, and is always found on the under sides of the leaves, generally

on roughish leaves, but not always so. It preys on the apple, cherry, fig, peach, pear, and plum—seldom on the apricot. It is among the smallest of the acari, and is sometimes not distinguishable without a microscope. If the bark of the leaf be viewed through one, it appears full of its webs; and if many abound on it, the leaf appears full of punctures, becomes discolored, and brown on the upper surface, fades, and falls off.

This insect is more troublesome in dry seasons than in moist ones, and is wonderfully encouraged by heat—insomuch, that hot-houses of every description are sadly infested with it. Water, and water only, is its bane; and the syringe, or the force-pump, the engine of its destruction. It is not a mere sprinkling that will do; it requires a forcible dashing to and fro, and that often repeated, to be effectual.

1059. *To destroy Vermin in Granaries and other Outbuildings.*—Cover completely the walls and rafters, above and below, of the granaries, &c., which are infested with weevils and other vermin, with quick-lime slaked in water, in which trefoil, wormwood, and hyssop have been boiled. This composition ought to be applied as hot as possible.

1060. *To destroy Worms in Gardens.*—Water your beds with a strong decoction of walnut-tree leaves where there are worm casts; the worms will immediately rise up out of the earth, and you may easily take and cut them to pieces, and fatten your poultry therewith, or feed fish in ponds with them.

By laying ashes or lime about any plant, neither snails nor worms will come near it. As the moisture weakens it, you must, more or less, continue to renew the lime or ashes.

1061. *To destroy Worms in Gravel Walks, &c.*—Pour into the holes a ley, made of wood ashes and lime; this will also destroy insects, if trees are sprinkled with it. Salt and water will do as well.

1062. *Usefulness of the Wren in destroying Insects.*—As a devourer of pernicious insects, one of the most useful birds is the house wren. This little bird seems to be particularly fond of the society of man, and it must be confessed that it is often protected by his interested care. It has long been a custom, in many parts of the country, to fix a small box at the end of a

long pole, in gardens, about houses, &c., as a place for it to build in. In these boxes they build and hatch their young. When the young are hatched, the parent bird feeds them with a variety of different insects, particularly such as are injurious in gardens. An intelligent gentleman was at the trouble to observe the number of times a pair of these birds came from their box, and returned with insects for their young. He found that they did this from 40 to 60 times in an hour, and in one particular hour, the birds carried food to their young 71 times. In this business they were engaged the greater part of the day; say 12 hours. Taking the medium therefore of 50 times in an hour, it appeared that a single pair of these birds took from the cabbage, salad, beans, peas, and other vegetables in the garden, at least 600 insects in the course of one day. This calculation proceeds upon the supposition that the two birds took only a single insect each time. But it is highly probable they often took several at a time.

1063. *To destroy Rats and other Vermin.*—Sponge, if cut in small pieces, fried or dipped in honey, and given to vermin, distends their intestines, and effectually destroys them. The addition of a little oil of Rhodium will tempt them to eat.

A better method would be to feed them regularly two or three weeks in any apartment which they infest. The hole, by which they enter, being first fitted with a sliding door, to which a long string may be added; any apartment might thus be turned into a gigantic rat-trap.

1064. *Another Method of Destroying Rats.*—Lay bird-lime in their haunts, for though they are nasty enough in other respects, yet being very curious of their fir, if it is but daubed with this stuff, it is so troublesome to them that they will even scratch their skins from off their own backs to get it off, and will never abide in a place where they have suffered in this manner.

1065. *To destroy Rats or Mice.*—Mix flour of malt with some butter; add thereto a drop or two of oil of anise-seeds; make it up into balls, and bait your traps therewith. *If you have thousands,* by this means you may take them all.

1066. *A Mouse Trap, by which forty or fifty Mice may be caught in a Night.*—Take a plain four-square trencher, and put

into the two contrary ends of it a large pin, or piece of thick knitting-needle; then take two sticks about a yard long, and lay them on your dresser, with a notch cut at each end of your sticks, placing the two pins, stuck on the corner of the trencher, on the notches of the two sticks, so that one corner of your trencher may lie about an inch upon your dresser or place that the mice may come to; then let the corner that lies opposite to this be baited with some butter and oatmeal, plastered fast on, and when the mice run off the dresser to the butter, it will tip them into a vessel full of water, which you must place under the trencher, in which they will be drowned.

That your trencher may not tip over, with a little sealing-wax and a thread seal the string to the dresser and trencher, and it will remain in good order for weeks or months.

1067. *New, simple, and effectual Method of destroying Rats.*—A few years ago, the corn-mill at Glossop was very much infested with rats. A quantity of barley, which lay on the chamber floor was hourly visited by some of them. The miller one day going to drive them away as usual, happened to catch one of them under his hat, which he killed; he then singed all the hair off its body, &c., until its skin, tail, and legs, became stiff by the operation. In this condition he set it upon its feet by the side of a heap of barley, where it stood, with pricked-up ears and tail, for some time; after this, no rat dared to come near it; and in a short space of time the mill was cleared of those depredators, and has continued so ever since.

1068. *To prevent the Burrowing of Rats in Houses.*—Rats may be effectually prevented from burrowing under the foundation of houses, by making an offset of stone or brick, about two feet in breadth, and eighteen inches below the surface; and by carrying up a perpendicular wall from the edge of this offset, to within a few inches of the ground. The adoption of the same plan *inside* will prevent the burrowing of these animals in cellars; for rats always burrow close to a wall; and finding their perpendicular course impeded, they take a horizontal direction, as far as the offset continues, when they are again stopped by the outside wall. Thus baffled, they ascend, and go off.

Those persons who have suffered in their granaries, ice-houses, and in the cellars of their dwelling-houses, by the depre-

dations of rats, will probably deem this one of the most valuable articles of the present work.

1069. *To keep Ponds and Artificial Pieces of Water free from Weeds.*—At the Marquis of Exeter's seat, near Burghley, there is an artificial piece of water, about a mile in length, which used to be so over-run with weeds, that three men were employed constantly, for six months in every year, to keep them under; in which they never perfectly succeeded. About seven years ago, two pair of swans were put on the water: they completely cleared away all the weeds the first year, and none have appeared since, as the swans constantly eat them before they rise to the surface.

1070. *Usefulness of Mowing Weeds.*—In the month of June weeds are in their most succulent state; and in this state, especially after they have lain a few hours to wither, hungry cattle will eat greedily almost every species. There is scarcely a hedge, border, or nook, but at this season is valuable, and it must certainly be good management to embrace the transient opportunity; for in a few weeks they will become nuisances.

1071. *On the great Increase of Milk from feeding Milch Cows with Sainfoin.*—The quantity of milk produced by cows fed by sainfoin is nearly double to that of any other food. The milk is also much richer, and will yield a larger quantity of cream. The butter will also be better colored and flavored than any other.

1072. *Parsnips productive of Milk in Cows.*—Parsnips cause cows to produce abundance of milk, and they eat them as free as they do oil-cake. Land, 7*l.* an acre in Guernsey, is sown with parsnips to feed cattle, and the milk is like cream.—Sheep, when lambing, fed with them, produce much milk. They are improper food for horses, subjecting them to blindness.

1073. *Most proper Food for Milch Cows.*—Milch cows are infinitely more profitable kept in the house than out of doors, but they must be trained to it, otherwise they do not thrive.

The best food for them are clover, lucern, potatoes, yams, turnips, carrots, cabbages, peas, and beans.

Such cows as those in the neighborhood of London, kept in

the house, and properly fed, ought to yield nine gallons per day, for the first four months after calving.

1074. *Additional Quantity of Milk to be gained by keeping Milch Cows in the House.*—In the management of cows a warm stable is highly necessary; and currying them like horses not only affords them pleasure, but makes them give their milk more freely. They ought always to be kept clean, laid dry, and have plenty of good sweet water to drink. Cows treated in this manner have given two gallons of milk at a time, when within ten days of calving.

1075. *Utility of Carrots as Food for Horses and other stall Beasts.*—Carrots are excellent food for horses, either given alone, or along with hay, likewise for fattening stall beasts. They make them eat straw, and very indifferent hay, greedily. If the same be given to cows, the milk will have a much less offensive taste and smell than when they are fed on turnips.

Remark.—It must be noted, however, that carrots, though very excellent, are a very expensive food. They would not enable a farmer to pay his rent.

1076. *Excellent Method of rearing Calves, and of preserving the Cream, and a great Part of the Milk during that Time.*—Put some water on the fire, nearly the quantity that the calf can drink. When it boils, throw into it one or two handfuls of oatmeal, and suffer the whole to boil for a minute. Then leave it to cool until new-milk-warm. Then mix with it one or two quarts of milk, that has stood twelve hours, and has been skimmed: stir the whole, and give it the calf to drink. At first it is necessary to make the calf drink by presenting the fingers to it, but it soon learns to do without this help, and will grow incomparably faster than by the old method. This new method is not only a theoretical truth, but its success is confirmed by experience.

The economical advantages resulting from it are as follows. According to the old method, a calf intended for slaughter is made to suck for three weeks, and those intended for agriculture, from six to eight weeks. Supposing the cow gives only a moderate quantity of milk, the value of it will amount, in three weeks, to nearly the value of the calf. If, on the contrary, we rear a calf according to this method, we consume

during the three weeks only three quarts of oatmeal, at most, and the skimmed milk.

Calves that have been brought up by this method have been always healthy and strong, and not subject to disease. They are not suffered to suck at all, but to have the pure milk of the mother to drink for the first four days, because it has been observed, that the separation, after four days, is more painful to the mother than when the calf is taken from her soon after its birth.

1077. *Rules for Milking Cows.*—Cows should be milked three times a day, if fully fed throughout the summer, and great caution should be exercised by the persons employed, to draw the milk from them completely, not only to increase the quantity of produce, but to preserve its quality. Any portion which may be left in the udder seems gradually absorbed in the system, and no more is formed than enough to supply the loss of what is taken away, and by the continuance of the same mode, a yet farther diminution of the secretion takes place, till at length scarcely any is produced. This last method of milking is always practised, when it is intended that a cow should be rendered dry.

1078. *Proper Temperature for a Dairy.*—The apartments appropriated for dairy purposes should, if possible, possess a moderate temperature throughout the year, and should be kept perfectly clean and dry. The temperature of about fifty-five degrees is most favorable for the separation of the cream from the milk. The utensils of the dairy are best made of wood; lead and copper are soluble in acid, and highly pernicious; and though iron is not injurious, the taste of it might render the produce of the dairy unpalatable.

1079. *Method of making excellent Butter from the Milk of Cows fed upon Turnips.*—Let the bowls, either lead or wood, be kept constantly clean, and well scalded with boiling water, before using. When the milk is brought into the dairy, to every eight quarts mix one quart of boiling water; then put up the milk into the bowls to stand for cream. By keeping strictly to this method, you will have, during the winter, constantly sweet and well-tasted butter from the milk of cows fed upon turnips.

1080. *Improved Method of making Butter.*—If the dairy consists of three or four cows, they should be milked in the summer thrice a day; in the morning, at noon, and in the evening. Each milking must be kept by itself, in flat wooden vessels, to cool in like manner; and thus in succession for two or three days, according to the temperature of the air, the milk thickens, and thence is fit for churning, soonest in the warmest weather. The quantity of butter will be generally in the proportion of a pound (twenty-two ounces) for each ten pints, or five English gallons of milk. In winter, the cows are to be milked only twice a day, and the milk is to be put into the churn warm from the cow, where it must stand a day or two longer than in summer before it becomes sufficiently thick; although to promote the coagulation, it is sometimes brought near the kitchen fire, particularly on the preceding night before it is churned; and, in intense cold, it will be necessary to add a small quantity of boiling water. The operation of churning is performed with the plunge-churn, from two to three hours, for thirty or forty pints of milk; and at the last stage of the process, a little cold water thrown in has the effect of promoting the separation of the butter from the milk. This method of making butter has long been practiced in England; it may be worth trial in America.

N.B.—The dairy-maid must not be disheartened if she does not succeed perfectly in her first attempt.

1081. *To prevent Cows from contracting bad Habits while Milking.*—Cows should always be treated with great gentleness, and soothed by mild usage, especially when young and ticklish, or when the paps are tender, in which case the udder ought to be fomented with warm water, before milking, and touched with the greatest gentleness, otherwise the cow will be in danger of contracting bad habits, becoming stubborn and unruly, and retaining her milk ever after. A cow never lets down her milk pleasantly to the person she dreads or dislikes. The udder and paps should always be washed with clean water before milking; but care should be taken that none of that water be admitted into the milking pail.

1082. *To mark Sheep, without injury to the Wool.*—To thirty spoonfuls of linseed oil, add two ounces of litharge and one

ounce of lamp-black: unite them together by boiling, and mark the sheep therewith.

1083. *To improve the Wool of Sheep, by Smearing.*—Immediately after the sheep are shorn, soak the roots of the wool that remain all over with oil or butter and brimstone; and three or four days afterwards, wash them with salt and water. The wool of next season will not only be much finer, but the quantity will be in greater abundance. It may be depended upon, that the sheep will not be troubled with the scab or vermin that year. Salt water is a safe and effectual remedy against maggots.

1084. *To preserve Cattle from Disease in the Winter.*—When cattle are kept out in the winter, it is recommended as an useful practice to rub some tar at the root of the horn, which prevents the wet from getting between the root and the skin, and, it is said, contributes to preserve the health of the animal, and to keep it free from various diseases to which it may otherwise be liable.

1085. *How to Promote the Health of Farm Animals.*—All domestic animals should be abundantly furnished with salt. A supply kept within their reach, whenever it can be done, is recommended. Horses and pigs should occasionally have ashes given them in their food; and pigs ought at all times, when confined in pens, to be supplied with charcoal, as, besides being a medicine, it is a cheap and valuable food.

1086. *Parsley recommended to Farmers to be sown with Rape-seed, as a preservative against the Resp in Sheep.*—A correspondent of the "Chester Chronicle" recommends to all farmers who sow rape-seed, to sow with it a small portion of parsley at the same time; this he pronounces an infallible preservative against the malady well-known by the name of *resp*, in sheep: he also advises to sow parsley on turnip land at the time of hoeing turnips. The above correspondent asserts, that he has pursued this plan upwards of twenty-five years, and during that time he has never lost one sheep, either in rape or turnip land.

Remark.—In some counties, parsley is sown with clover, on the supposition that it prevents cattle from being bursten, or hoven.

1087. *How to catch Sheep.*—Never seize them by the wool on the back; it hurts them exceedingly, and, in some cases, has been known to kill them, particularly in hot weather, when they are large and fat. The best way is to avoid the wool altogether; accustom yourself to take them by the hind leg, or what is still better, by the neck, placing one hand under the jaws, and the other at the back of the ears. By lifting up the head, in this manner, a child may hold almost any sheep, without danger to the animal or himself.

1088. *Mr. Bakewell's Liquid for the cure of the Foot-ret in Sheep.*—Dissolve four ounces, each, of vitriol and common alum, three ounces of verdigris, an ounce and a half of white mercury, and an ounce of white copperas, all finely pulverized, in a quart of white-wine vinegar.

1089. *Mr. Culley's Red Salve, to cure the Rot in Sheep.*—Mix four ounces of the best honey, two ounces of burnt alum, reduced to powder, and half a pound of Armenian bole, with as much train or fish oil as will convert these ingredients into the consistence of a salve. The honey must first be gradually dissolved, when the Armenian bole must be stirred in; afterwards the alum and train oil are to be added.

1090. *A profitable way of fattening Pigs.*—Put four pigs in a sty, for they feed best in company; but if there are too many, they are apt to quarrel: feed them moderately the first week; and thrice during the second week, mix with their barley-meal as much antimony as will lie on a shilling; and the third week, twice give them the same quantity. I need scarcely observe, it is in powder.

This purifies the blood, gives them an appetite, and makes them thrive apace.

1091. *New mode of fattening Pigs.*—A pig lately gained, by feeding on Indian corn, in the course of six weeks and three days, the enormous weight of fifteen stone. This mode of feeding has long been known to the Neapolitans, whose pigs are so fat, as hardly to be able to move.

GARDENING.

1092. *Proper situation for a Green-House.*—The aspect of a green-house may be at any point from east to west, following the course of the sun; or, it may even be a little to the north of east or west; but only a little, and the less the better, otherwise the plants will not generally thrive in it, nor will the flowers acquire their natural colors. A south aspect is to be preferred.

1093. *On preserving Seeds of Plants in a state fit for Vegetation.*—Seeds of plants may be preserved, for many months at least, by causing them to be packed, either in husks, pods, &c., in absorbent paper, with raisins or brown moist sugar; or, a good way, practised by gardeners, is to wrap the seed in brown paper or cartridge paper, pasted down, and then varnished over.

1094. *To facilitate the Growth of Foreign Seeds.*—Mr. Humboldt has found, that seeds which do not commonly germinate in our climate, or in our hot-houses, and which, of course, we cannot raise for our gardens, or hope to naturalize in our fields, become capable of germinating, when immersed for some days in a weak, oxygenized muriatic acid. This interesting discovery has already turned to advantage in several botanic gardens.

1095. *To plant and make Edgings.*—Edgings of daisies, thrift, violets, gentianella, &c., should be planted in February; but those of box succeed better, if planted in April or August.

1096. *To train Evergreen and other Hedges.*—Evergreen hedges may be clipt about the beginning, but not later than the middle of April, as by that time they will begin to grow—and it is proper that this work should be previously performed. Some content themselves with clipping but once a year, in which case the end of July, or first of August, is a better time.

In trimming these, or indeed any hedge intended as a close fence, they should be dressed up to a thin edge at top, as otherwise they are apt to get full of gaps below; and the cause is obvious, that the under part, in square or cut hedges, is too much shaded by the upper part. Now, by sloping the sides,

every part of the hedge is freely exposed to the air; nor is any part over-dropped by another. A hedge, intended merely as a fence, need seldom be more than five feet high, or at most six. Screen hedges may be allowed to run to any height thought necessary for the purpose; neither is it requisite to trim them so often as fence-hedges; once a year, or in two years, may be sufficient.

In the training of any hedge, it should not be topped or shortened, till it has arrived at a full yard in height; but it may then have a little taken off the points, in order to make it bush the better, and shoot afterwards of a more regular height; the sides, however, should be trimmed from the second or third year of planting, that it may grow the more complete and close below, for therein consists the excellence of any fence. It should not in topping, at any time while in training, be much cut in, as that would make it push the stronger to the top, to the detriment of the sides. When fence-hedges outgrow their limits, they must, of course, be cut either wholly or partly down; but if they be tolerably well kept, it is seldom necessary to cut them down more than half to the ground.

1097. *How to cut Box Edgings.*—Box edgings should be cut about the beginning of April, or in the end of July. They should, however, be cut once a year, and should be kept two inches in breadth at bottom; being tapered up to a thin edge at top; for nothing looks so ill as a large, bushy edging, especially to a narrow walk. The use of edging is to separate the earth from the gravel; and the larger they are allowed to grow, the less effectual they become; getting the more open below, as they advance in height. Such also harbor snails, and other troublesome vermin.

1098. *A sure method of curing Gravel-Walks.*—Three parts pond-water to one of brine, from the salting-tub in a family, poured with a watering-pot upon gravel-walks, will not only kill the moss upon them, but drive away the worms which make so many holes in them, and also prevent weeds springing up. This a gentleman lately tried, who has several gravel-walks in a grove near his house. Since he moistened his walks with brine—which is now four years ago—they are incommoded neither by moss, weeds, nor worms. Every autumn he causes them to be well watered with the brine and pond-water, during

a whole week, to prevent moss; and a week in the spring, to guard against weeds and worms; besides giving them a sprinkling every now and then, in the summer-season, when they seem to want it.

1099. *Proper method of laying Carnations.*—In summer, towards the latter-end of June, or any time in July or beginning of August, when the shoots of the year are advanced to a proper growth, being from four, five, or six, to seven or eight inches long, which are to be laid as they grow on the plants, and to remain affixed thereto till rooted on the ground.

Thus far observed, begin the work by first clearing away all weeds about the plants, and loosen the earth a little around them, and if the surface is low, add some mould thereto sufficient to raise it high enough to receive the layers easily; then begin laying the shoots one by one; strip off the lower leaves so as to have some inches of a clear shoot below; and trim the top leaves shorter and even, and then slit or gash the shoot on the under side; in doing which, fix on a joint about the middle of the shoot underneath, and with your sharp knife cut half through the joint, and slanting upwards, so as to slit the shoot up the middle half an inch, or but little more; which done, directly lay it, by bending it down to the earth with the gash or slit part open, making an opening in the earth, and peg it down with one or two of the small-hooked sticks, and earth over the body of the layer an inch or two deep, still keeping the slit open and the top raised gently upright, pressing the earth moderately upon them; and in this manner proceed with laying all the shoots on each plant; and when all are laid, give a gentle watering to settle the earth close about the layers, and repeat it frequently in dry weather.

They will soon emit roots at the gash or slit part, generally at the bottom of the tongue, and in five or six weeks will often be rooted fit for separating and planting off from the parent, so that when they have been about five, six, or seven weeks laid, you will examine the progress they have made in rooting, by opening the earth gently about some of the layers; and as soon as they appear to be tolerably rooted, let them be cut off from the old plant with a sharp knife, in order to be timely planted out in nursery beds, that they may root more abundantly, and get due strength before winter; observing, in cutting them off from the mother plant, to open the ground so as

to take them up with all the roots they have made, and cut them clean off beyond the gash; afterwards trim off any naked woody part or bottom, but preserve all the roots, and trim the long tops a little, then plant them in nursery rows, six inches asunder, or you may prick some in small pots, one layer in each, giving water directly at planting, and repeat it often in dry weather till they take good root, and grow freely, keeping them clean from weeds.

Those in the nursery beds will, by October, be good strong plants. The choicest sorts may then be planted in pots, to move under occasional shelter in time of severe frost, and for which purpose, either use small pots (32) to contain them all winter, or plant them in large pots (24 or 16) to remain to flower, observing to take them up out of the nursery beds for potting, &c., with a garden trowel, each layer with a good ball of earth about the roots; and having the pots ready, place a shell over the holes at bottom, and put some good light rich earth therein; plant one layer with its ball about the roots entire in each pot, fill up with more earth, and give some water; you may also at the same time plant some of the more ordinary or common sorts into flower-borders or beds, to stand the full weather all the year; but the choicer sorts in the pots may, in November, be placed close together, either in a garden-frame, to have occasional protection of the glasses, or mats, in severe frost, and have the full air in all open weather and mild days, or may be plunged in a raised bed of any dry compost, raised some inches above the common level, and arched over with hoop arches, in order to be protected with occasional covering of garden mats when hard frosts prevail; but in either method, be sure to expose them fully in all open weather, as aforesaid.

In the spring, such as have remained all winter in small pots should, in February or early in March, be turned out with the ball of earth about the root, and planted into larger pots, to remain for flowering, giving proper waterings; and those which were potted at once into larger pots in autumn should now have the earth stirred at top, taking out some, and fill up with fresh good earth, and give a little water.

The layers planted in the common borders of the pleasure and flower garden require no other care than keeping them clean from weeds, and tying up the flower stalks to sticks when they are advanced long enough to require support.

1100. *To remove Herbs and Flowers in the Summer.*—If you have occasion to transplant in the summer season, let it be in the evening after the heat is past; plant and water the same immediately, and there will be no danger from the heat next day; but be careful, in digging up the earth, you do not break any of the young shoots, as the sap will exude out of the same to the great danger of the plants.

1101. *New Method of raising Cucumbers.*—From the best seed that can be got of the common prickly cucumber, raise plants on a moderate hot-bed, not hurrying them too much in their growth. In May, when the danger of the frost is nearly over, familiarize the plants, by degrees, to the air, and towards the latter end of the month plant them in the open ground against a south wall. Take care not to give them too much water, as that will injure the fruit. When they have run up about five feet, they will send forth blossoms, and the fruit will begin to show itself soon after. The flesh of cucumbers raised in this manner will be thicker and firmer, and the flavor vastly more delicious, than those raised from the same seed, but planted in the ordinary way, and the runners suffered to trail on the ground. Though a south wall in most gardens, is too much appropriated to other things, to give room for cucumbers in general, yet in every garden a few plants may be so trained by way of rarity, and to save seed, which is found to be greatly improved by this method, so as to produce much better cucumbers in the common way of raising them. One or two plants, so raised, will supply a sufficient quantity of seed for a large garden.

Laying a cucumber or melon-bed with tiles, is also of particular service in improving the fruit, and giving it a proper flavor.

1102. *To prevent the irregular Growth of Melons.*—It is well known that melons frequently, in certain situations, lose their circular form, and grow larger on one side than the other, and that those misshapen fruits are always bad. To remedy this, take a small forked stick, in proportion to the size of the melon, and thrust it in the ground as nearly as possible to the tail of the fruit, taking the precaution to lay a little moss between the two prongs, and suspend the melon to this fork. In a few days the melon will resume its form, when the fork may be removed,

and the operation is finished. The quality of the fruit remains unchanged.

1103. *Easy Method of producing Mushrooms.*—If the water wherein mushrooms have been steeped or washed be poured upon an old bed, or if the broken parts of mushrooms be strewed thereon, there will speedily arise great numbers.

1104. *To obtain a good Crop of Onions.*—In order to obtain a good crop of onions, it is proper to sow at different seasons, viz., in light soils, in August, January, or early in February; and in heavy wet soils, in March, or early in April. Onions, however, should not be sown in January, unless the ground be in a dry state, which is not often the case at so early a period of the season; but if so, advantage should be taken of it.

1105. *The Advantage of sowing Peas in Circles instead of straight Rows.*—It is a great error in those persons who sow the rows of tall-growing peas close together. It is much better in all those sorts, which grow six or eight feet high, to have only one row, and then to leave a bed ten or twelve feet wide for onions, carrots, or any crops which do not grow tall.

The advantages which will be derived are, that the peas will not be drawn up so much, be stronger, will flower much nearer to the ground, and in wet weather can be more easily gathered without wetting you.

But instead of sowing peas in straight rows, if you will form the ground into circles of three feet diameter, with a space of two feet between each circle, in a row thirty feet long, you will have six circles of peas, each nine feet, in all fifty-four feet of peas, instead of thirty, on the same extent of ground.

If you want more than one row of circles, leave a bed of ten or twelve feet before you begin another.

For the very tall sorts, four feet circles will afford more room for the roots to grow in, and care must be taken, by applying some tender twigs, or strings, to prevent the circles from joining each other.

This method is equally applicable for scarlet-beans.

1106. *To raise Peas in Autumn, and to prevent Mice from eating them when sown.*—The purple-flowered peas are found to answer best for a late crop in autumn, as they are not so liable

to be mildewed as many of the other sorts, and will continue flowering till the frost stops them.

Those peas may be sown in July, August, or so late as the first week in September, if sown in a warm, sheltered situation, and in a soil inclining to sand.

Soak the peas in warm milk, and after you have drawn the drills, water them before you sow the peas; it is best to sow them towards the evening. If the autumn should prove very dry, they will require frequent watering.

When peas are sown before winter, or early in spring, they are very apt to be eaten by mice.

To prevent this, soak the peas for a day or two in train oil before you sow them, which will encourage their vegetation, and render them so obnoxious to the mice, that they will not eat them.

1107. *Method of cultivating Radishes for Salad, so as to have them ready at all seasons of the year.*—Take seeds of the common radish, and lay them in rain-water to steep for twenty-four hours; then put them quite wet into a small linen bag, well tied at the mouth with packthread. If you have steeped a large quantity of seeds, you may divide them into several bags. Then expose the bags in a place where they will receive the greatest heat of the sun, for about twenty-four hours, at the end of which time the seed will begin to grow, and you may then sow it in the usual manner, in earth well exposed to the heat of the sun. Prepare two small tubs to cover each other exactly. These may be easily provided, by sawing a small cask through the middle, and they will serve in winter; in summer one will be sufficient for each kind of earth that has been sown. As soon as you have sown your seeds you must cover them with your tub, and at the end of three days you will find radishes of the size and thickness of young lettuces, having at their extremities two small round leaves, rising from the earth, of a reddish color. These radishes, cut or pulled up, will be excellent, if mixed with salad, and they have a much more delicate taste than the common radishes which are eaten with salt.

By taking the following precautions, you may have them in the winter, and even during the hardest frosts: After having steeped the seeds in warm water, and exposed them to the sun, as already directed, or in a place sufficiently hot to make them shoot forth, warm the two tubs; fill one of them with earth

well dunged; sow your seeds, thus prepared, in one of them, and cover it with the other tub; you must then be careful to sprinkle it with warm water as often as may be necessary. Then carry the two tubs closely joined, taking care they cover each other, into a warm vault, or cellar, and at the end of fifteen days you may gather a fine salad.

1108. *To preserve Strawberry Plants from the Heat of the Sun, &c.*—Sir Joseph Banks, from a variety of experiments, and the experience of many years, recommends a general revival of the now almost obsolete practice of laying straw under strawberry-plants, when the fruit begins to swell; by which means the roots are shaded from the sun, the waste of moisture by evaporation prevented, the leaning fruit kept from damage by resting on the ground, particularly in wet weather, and much labor in watering saved. Twenty trusses of long straw are sufficient for 1800 feet of plants.

1109. *Directions for managing Strawberries in Summer.*—On the management of strawberries in June and July, the future prosperity of them greatly depends; and if each plant has not been kept separate, by cutting off the runners, they will be in a state of confusion, and you will find three different sorts of plants.

1. Old plants, whose roots are turned black, hard, and woody.

2. Young plants, not strong enough to flower.

3. Flowering plants, which ought only to be there, and perhaps not many of them.

Before the time of flowering is quite over, examine them, and pull up every old plant which has not flowered; for, if once they have omitted to flower, you may depend upon it they never will produce any after, being too old, and past bearing; but to be fully convinced, leave two or three, set a stick to them, and observe them the next year.

If the young plants, runners of last year, be too thick, take some of them away, and do not leave them nearer than a foot of the scarlet, alpines, and wood, and fifteen or sixteen inches of all the larger sorts; and in the first rainy weather in July or August, take them all up, and make a fresh plantation with them, and they will be very strong plants for flowering next year.

Old beds, even if the plants be kept single at their proper distance, examine, and pull all the old plants which have not flowered.

When the fruit is nearly all gathered, examine them again, and cut off the runners; but if you want to make a fresh plantation, leave some of the two first, and cut off all the rest. Then stir up the ground with a trowel, or three-pronged fork, and in August they will be fit to transplant.

If you have omitted in July, do not fail in August, that the runners may make good roots, to be transplanted in September; for, if later, the worms will draw them out of the ground, and the frost afterwards will prevent them from striking root; the consequence of which is, their not flowering the next spring; and you will lose a year.

1110. *To cultivate the common Garden Rhubarb.*—It is not enough to give it depth of good soil, but it must be watered in drought; and in winter must be well covered with straw or dung. If this is attended to, your rhubarb will be solid when taken out of the ground; and your kitchen, if a warm one, will soon fit it for use.

1111. *Method of cultivating and curing Turkey Rhubarb from Seed.*—The seed should be sown about the beginning of February, on a bed of good soil, (if rather sandy, the better) exposed to an east or west aspect in preference to the south; a full sun being prejudicial to the vegetation of the seeds, and to the plants whilst young.

The seeds are best sown moderately thick, (broad cast) treading them regularly in, as is usual with parsnips and other light seeds, and then raking the ground smooth. When the season is wet, make a bed for sowing the rhubarb seeds upon, about two feet thick, with new dung from the stable, covering it near one foot thick with good soil. The intent of this bed is not for the sake of warmth, but solely to prevent the rising of earthworms, which in a moist season will frequently destroy the young crop.

If the seed is good, the plants often rise too thick; if so, when they have attained six leaves, they should be taken up carefully, (where too close), leaving the standing crop eight or ten inches apart: those taken up may be planted at the same distance in a fresh spot of ground, in order to furnish other

plantations. When the plants in general are grown to the size that cabbage-plants are usually set out for a standing crop, they are best planted where they are to remain, in beds four feet wide, one row along the middle of the bed, leaving two yards' distance between the plants, allowing an alley between the beds about a foot wide, for conveniency of weeding the plants.

In the autumn, when the decayed leaves are removed, if the shoveling of the alleys is thrown over the crowns of the plants, it will be found of service.

1112. *Cultivation of Turkey Rhubarb, by offsets.*—Slip off several offsets from the heads of large plants; set them with a dibble about a foot apart, in order to remove them into other beds; and, in the autumn, they will be in a thriving state.

1113. *Method of curing Rhubarb.*—The plants may be taken up, either early in the spring or in autumn, when the leaves are decayed, in dry weather, if possible: when the roots are to be cleared from dirt, (without washing,) let them be cut into pieces, and, with a sharp knife, freed from the outer coat, and exposed to the sun and air for a few days, to render the outside a little dry.

In order to accelerate the curing of the largest pieces, a hole may be scooped out with a pen-knife; these and the smaller parts are then to be strung on packthread, and hung up in a warm room, where it is to remain till perfectly dry. Each piece may be rendered more sightly by a common file, fixing it in a small vice during that operation; afterwards rub over it a very fine powder, which the small roots furnish in beautiful perfection, for this and every other purpose where rhubarb is required.

An easier and simpler method of drying rhubarb is, after cutting the root into handsome pieces, to wrap up each separately, in one or more pieces of whitish-brown paper, and then to place them on the hob of a common Bath stove. Lemon and orange-peel dry beautifully in this way.

1114. *Proper Soil for the culture of Turnips.*—Sandy loams, in good heart, are most favorable to their growth, though they will thrive well on strong loams, if they are not wet; but on clayey, thin, or wet soils, they are not worth cultivating; for though a good crop may be raised on such ground, when well

prepared and dunged, more damage is done by taking off the turnips in winter, in poaching the soil, than the value of the crop will repay.

1115. *Preservation of Succulent Plants.*—Green succulent plants are better preserved after a momentary immersion in boiling water, than otherwise. This practice has been successfully used in the preservation of cabbage and other plants, dried for keeping; it destroys the vegetable life at once, and, in a great degree, prevents that decay which otherwise attends them.

1116. *Various useful properties of Tobacco to Gardeners.*—Tobacco is employed for so many different uses, that there is no person possessed of a garden but will find both pleasure and profit in the cultivation of it, especially as it is now at such a high price. The seed is very cheap, and may be procured of most nurserymen, and will answer the same end as the foreign for most purposes, and considerably cheaper.

Uses to which it may be applied.—1. To florists, for two elegant annual plants to decorate the borders of the flower-garden; or, on account of their height, to fill up vacant places in the shrubberies; or, when put into pots, they will be very ornamental in the green-house during the winter.

2. Kitchen-gardeners would in a few days lose their crops of melons, if not immediately fumigated with tobacco-smoke, when attacked by the red spider; and it is useful to destroy the black flies on cucumbers in frames.

3. Fruit-gardeners. When peach and nectarine-trees have their leaves curled up, and the shoots covered with smother-flies; or, the cherry-trees have the ends of the shoots infested with the black dolphin-fly; canvas, pack-sheets, or doubled mats, nailed before them, and frequently fumigated under them, will destroy those insects.

4. Forcing-gardeners, who raise roses and kidney-beans in stoves, can soon destroy the green flies which cover the stalks and buds of roses, and the insects which appear like a mildew on kidney-beans, by the assistance of the fumigating bellows.

5. Nurserymen. When the young shoots of standard cherry-trees, or any other trees, are covered with the black dolphin-flies, an infusion is made with the leaves and stalks of tobacco; a quantity is put into an earthen pan, or small, oblong wooden trough; one person holds this up, whilst another gently bends

the top of each tree, and lets the branches remain about a minute in the liquor, which destroys them.

6. Graziers, when their sheep are infected with the scab, find relief from making a sheep-water with an infusion of the leaves and stalks. Moles, when only a few hills are at first observed, may probably be soon driven out of the ground, by fumigating their holes.

7. Herb tobacco is also greatly improved by having some of the leaves, when dried, cut with a pair of scissors, and mixed with the herbs in any quantity you may think proper, according to the strength you require, and save you the expense of buying tobacco.

The herbs generally used for this purpose are colt's-foot and wood betony-leaves; the leaves and flowers of lavender, rosemary, thyme, and some others of the like nature.

THE ORCHARD.

1117. *To prevent Blossom and Fruit-trees from being damaged by early Spring Frost.*—If a rope (a hempen one, it is presumed) be introduced among the branches of a fruit-tree in blossom, and the end of it brought down, so as to terminate in a bucket of water; and, should a slight frost take place in the night-time, in that case the tree will not be affected by the frost; but a film of ice, of considerable thickness, will be formed on the surface of the bucket in which the rope's-end is immersed, although it has often happened that another bucket of water, placed beside it for the sake of experiment, has had no ice at all upon it.

1118. *Chinese mode of propagating Fruit-trees.*—The ingenious people of China have a common method of propagating several kinds of fruit-trees, which of late years has been practised with success in Bengal. The method is simply this:—They strip a ring of bark, about an inch in width, from a bearing branch, surround the place with a ball of fat earth, or loam, bound fast to the branch with a piece of matting: over this they suspend a pot or horn, with water, having a small hole in the bottom just sufficient to let the water drop, in order to keep the earth constantly moist. The branch throws new roots into the earth just above the place where the ring of bark was stripped off.

The operation is performed in the spring, and the branch is sawed off and put into the ground at the fall of the leaf. The following year it will bear fruit.

1119. *To improve Fruit-trees by attention to the Color of the Soil.*—The color and also the quality of soils have an effect on the color and flavor of fruits—even on the color of many flowers. The effects of the color of soils on that of fruits, are most perceptible on the delicate kinds, such as grapes, peaches, &c.; but to a nice observer, it extends in a greater or less degree to all fruits. For instance, if two black Hamburgh grapes, made from the cuttings of the same plant, shall be planted, the one in a dry, hazelly loam, and the other in a moist, black earth, the fruit of the one will be brown, or of a grizzly color, and the other very dark red or black; and the grape will be more juicy, though better in flavor, than the other grown in a dryer soil.

1120. *To increase the Growth in Trees.*—It may be depended upon as a fact, that by occasionally washing the stems of trees, their growth will be greatly increased; for several recent experiments have proved, that all the ingredients of vegetation united, which are received from the roots, stem, branches, and leaves of a mossy and dirty tree, do not produce half the increase either in wood or fruit, that another gains whose stem is clean. It is clearly obvious, that proper nourishment cannot be received from rain, for the dirty stem will retain the moisture longer than when clean; and the moss and dirt will absorb the finest parts of the dew, and likewise act as a screen, by depriving the tree of that share of sun and air which it requires.

A common scrubbing-brush and clean water is all that is necessary, only care must be observed not to injure the bark.

1121. *To prevent Hares and Rabbits from Barking young Plantations.*—Hares, rabbits, and rats, have a natural antipathy to tar; but tar, though fluid, contracts, when exposed to the sun and air for a time, a great dryness and a very binding quality; and if applied to trees in its natural state, will occasion them to be bark-bound. To remove this difficulty, tar is of so strong a savor, that a small quantity mixed with other things, in their nature open and loose, will give the whole mixture such a degree of its own taste and smell, as will prevent hares, &c., touching what it is applied to.

Take any quantity of tar, and six or seven times as much grease, stirring and mixing them well together; with this composition brush the stems of young trees, as high as hares, &c., can reach; and it will effectually prevent their being barked.

1122 *Bad effects of Iron Nails, &c., on Fruit-trees, or mischievous effects of Iron Nails, in conjunction with Branches of Fruit-trees*—It often happens that some of the limbs of fruit-trees, trained against a wall, are blighted and die, while others remain in a healthy and flourishing state. This has been hitherto erroneously attributed to the effects of lightning; but, from closer observation, and from several experiments, it has been found to arise from the corroding effects of the rust of the nails and cramps with which trees in this situation are fastened. To avoid this inconvenience, therefore, it requires only to be careful in preventing the iron from coming in contact with the bark of the trees.

1123. *To destroy Moss on Trees.*—Remove it with a hard scrubbing-brush, in February and March, and wash the trees with cow-dung, urine, and soap-suds.

1124. *Necessity of taking off superfluous Suckers from Shrubs.*—Many flowering shrubs put out strong suckers from the root, such as lilacs, syringa, and some of the kinds of roses, which take greatly from the strength of the mother-plant; and which, if not wanted for the purpose of planting next season, should be twisted off, or otherwise destroyed.

1125. *To cure the Disease in Apple-trees.*—Brush off the white down, clear off the red stain underneath it, and anoint the places infected with a liquid mixture of train-oil and Scotch-snuff.

1126. *To cure the Canker in Trees.*—Cut them off to the quick, and apply a piece of sound bark from any other tree, and bind it on with a flannel roller. Cut off the canker, and a new shoot will grow strong, but in a year or two you will find it cankered.

1127. *A method of curing Fruit-trees infected with an Easterly Blight.*—Where valuable fruit-trees are infected with this blight,

they may, with little trouble and expense be in a short time cured, by fumigating them with brimstone strewed on lighted charcoal; this effectually kills it; but the workman must observe to get to windward of the trees, as the fumes, both of brimstone and charcoal, are very offensive and pernicious.

Mr. Miller recommends washing and sprinkling the blighted trees from time to time, with common water, (that is, such as hath not had anything steeped in it,) and the sooner that is performed, (whenever we apprehend danger,) the better; and if the young and tender shoots seem to be much infected, wash them with a woollen cloth, so as to clear them, if possible, from all glutinous matter, that their respiration and perspiration may not be obstructed; and if some broad, flat pans, or tubs, are placed near the trees, it will keep their tender parts in a ductile state, and greatly help them; but whenever this operation of washing the trees is performed, it should be early in the day, that the moisture may be exhaled before the cold of the night comes on, especially if the nights are frosty; nor should it be done when the sun shines very hot upon the wall, which would be subject to scorch up the tender blossom.

1128. *Experienced method of healing Wounds in Trees.*—This method consists in making a varnish of common linseed oil, rendered very drying, by boiling it, for the space of an hour, with an ounce of litharge to each pound of oil, mixed with calcined bones, pulverized and sifted, to the consistence of an almost liquid paste. With this paste the wounds of trees are to be covered, by means of a brush, after the bark and other substance have been pared, so as to render the whole as smooth and even as possible. The varnish must be applied in dry weather, in order that it may attach itself properly.

1129. *Composition for healing Wounds in Trees.*—Take of dry, pounded chalk, *three* measures; add of common vegetable tar, *one* measure; mix them thoroughly, and boil them, with a low heat, till the composition becomes of the consistency of bees'-wax: it may be preserved for use, in this state, for any length of time. If chalk cannot conveniently be got, dry brick-dust may be substituted.

Application.—After the broken or decayed limb has been sawed off, the whole of the *saw-cut* must be very carefully pared away, and the rough edges of the bark, in particular must be

made quite smooth; the doing of this properly is of great consequence then lay on the above composition, hot, about the thickness of half-a-dollar, over the wounded place, and over the edges of the surrounding bark; it should be spread with a hot trowel.

1130. *To prune Wall Fruit.*—Cut off all fresh shoots, however fair they may appear to the eye, that will not, without much bending, be well placed to the wall; for if any branch happen to be twisted or bruised in the bending or turning (which you may not easily perceive), although it may grow and prosper for the present, yet it will decay in time, and the sap or gum will issue from that place.

1131. *To prune Vines to Advantage.*—In pruning vines, leave some new branches every year, and take away (if too many) some of the old, which will be of great advantage to the tree, and much increase the quantity of fruit.

When you trim your vine, leave two knots, and cut them off the next time; for, usually, the two buds yield a bunch of grapes. Vines, thus pruned, have been known to bear abundantly, whereas others that have been cut close to please the eye, have been almost barren of fruit.

1132. *The most proper Times when Leaves of Trees ought to be collected for pharmaceutical and economical Purposes.*—It is at that period when the plant is in full flower, that the leaves possess their full virtue. They drop off when their particular life has terminated.

TIMBER.

1133. *To promote the Growth of Forest-trees.*—It is highly to be censured, the neglect of permitting ivy-twines, which grow to forest-trees, to remain attached to them. Their roots entering into the bark, rob the trees of much of their nourishment; they in a manner strangle their supporters, by impeding the circulation of their juices, and in time destroy the trees. They should be torn up by the roots, for, if any part of them adhere to the tree, they will spread, as they obtain nourishment by their adhering roots.

1134. *White-washing the Trunks of Trees, recommended.*—Being one day upon a visit (observes Mr. Northmore, who recommends this experiment) at my friend's near Yarmouth, in the Isle of Wight, I remarked that several of the trunks of trees in his orchard had been covered with whitewash; upon inquiring the reason, he replied, that he had done it with a view to keep off the hares, and other animals, and that it was attended not only with that good effect, but several others, for it made the rind smooth and compact, by closing up the cracks; it entirely destroyed the moss; and as the rains washed off the lime, it manured the roots. These several advantages, derived from so simple a practice, deserve to be more generally known. The white-wash is made in the usual manner with lime, and may be applied twice, or oftener, if necessary.

1135. *To cure Wounds in Trees.*—Wounds in trees are best cured by covering them with a coat of common lead paint without turpentine (for turpentine is poison to vegetation) in the sun, on a fine dry day.

1136. *Trees for Shade, Nursery Trees, &c.*—Forest Trees selected for shade should be of kinds not liable to be attacked by worms and insects. The rock or sugar maple is always remarkably free from worms, and it makes the most dense and beautiful shade of all our deciduous trees. This is becoming a very popular tree, and we hope to see it extensively propagated. There is no more risk in transplanting this than the elm, and the limbs are not liable to be broken by the winds and snow.

We believe it is generally admitted that transplanted trees succeed best when their early growth has been in soil similar to that for which they are destined to be placed permanently. If raised in such a soil, and transplanted to that which is thin and poor, they seem to receive a shock from which with difficulty they recover. As a gentleman once remarked, it is like feeding a calf with all the milk he will take till he is six months old, and then suddenly turning him off to live on a short pasture.

Large trees may be as successfully planted as small ones. The mode and result of an experiment made by Messrs. Pomeroy and Dutton, of Utica, are thus given: Those gentlemen transplanted trees, comprising maples, elm, beech, &c., some

thirty feet in height, which were transplanted without being shorn of any of their branches. The process of removal was as follows:—In the fall, before the frost, a trench was dug around the trees selected, from ten to fifteen feet in diameter, and the roots severed. In the winter when the ground had become solid from freezing, the trees were pulled out by the aid of oxen and levers, with the mass of earth firmly attached to the roots. They were then transported erect on a strong sled, built for the purpose, and set out.

These trees grew in open land, a mile and a half from the city. They put on their foliage last spring, as if wholly unconscious that they were not still in their native soil, and the enterprising gentlemen who undertook this unusual course, are rewarded with shade trees which by the old practice it would have required twenty years to produce.

Summer pruning is sometimes necessary in order to give form and proper direction to nursery trees, and standard trees may need thinning, in order to expose the fruit to light and air; but in pruning trees thoroughly, particularly if large limbs are to be cut off, it is best to defer the business till the last of July, August, or the former part of September.

Late in summer and early in autumn, the bark does not peel as it does early in the summer, when it often starts from the tree which is injured by going into trees and stepping on limbs with hard shoes. The sap will ooze out of some trees early in summer, which not only injures them generally, but it often causes the wounded part to decay.

But in late pruning, the wood, when the branch is cut off, becomes sound and well seasoned; and though it may not heal over so readily as when cut early in summer or spring, it remains in a healthy state.

1137. *To preserve Wood in Damp Situations.*—Two coats of the following preparation are to be applied, after which the wood is subject to no deterioration whatever from humidity. Twelve pounds of resin are to be beaten in a mortar, to which three pounds of sulphur and twelve pints of whale oil are to be added. This mixture is to be melted over the fire, and stirred during the operation. Ochre, reduced to an impalpable powder, by triturating it with oil, may then be combined in the

proportion necessary to give either a lighter or a darker color to the material. The first coat should be put on lightly, having been previously heated; the second may be applied in two or three days, and a third after an equal interval, if from the peculiar dampness of the situation it should be judged expedient.

Remark.—It is highly probable (though the experiment has not been tried) that this composition would be improved by adding a small portion of the liquid leather, which is now commonly sold in London, being the refuse of the purification of fish oil by tar.

Where the work will bear the expense, and is not exposed to a heat of more than 130 degrees of Fahrenheit, the best composition is the following: Equal parts of turpentine (the fluid resin, not the essential oil), bees'-wax, black resin and maltha, or coal-tar, boiled together till they cease to rise—that is, till the white cream or scum proceeding from the separation of the essential oil disappears. Apply it warm with a turpentine brush—two or three coats, to cover the cracks or pores left by the brush. This lute was first proposed by Chaptal, without the addition of the coal tar, which is a great improvement. A piece of wood covered with three coats of it, and immersed for two years in water, was found to be quite dry on cutting off the lute.

Take care not to allow water to fall into the pan, as it would make the hot materials explode. If the composition catch fire, put on the cover directly, and remove the pan for an instant from the fire.

1138. *Cause and Prevention of the Dry Rot.*—The cause of the dry rot in wood is moisture; and to prevent well-dried timber from decaying above or under ground, is done by charring it well.

1139. *Cure for the Dry Rot in Timber, so as to make it indestructible by Water.*—Melt twelve ounces of resin in an iron pot; add three gallons of train oil, and three or four rolls of brimstone; and when the brimstone and resin are melted and become thin, add as much Spanish brown, or red and yellow ochre, or any other color required, first ground fine with the same oil, as will give the whole a shade of the depth preferred; then lay it on with a brush as hot and thin as possible; some

time after the first coat is dried, give it a second. This preparation will preserve planks for ages, and keep the weather from driving through brick work.

1140. *Method of trying the Goodness of Timber for Shipbuilding, used in the Arsenal at Vienna.*—One person applies his ear to the centre of one end of the trunk, while another, with a key, hits the other end with a gentle stroke. If the tree be sound and good, the stroke will be distinctly heard at the other end, though the tree should be a hundred feet or more in length.

1141. *To season and render Green Timber immediately fit for use.*—After the timber has been cut down from the stock, take off, immediately, both the outer bark and also the inner rind, clean to the wood; cut it up to the different purposes for which it may be wanted, whether scantlings for roofings, joists, planks, deals, or the like. After preparing them for their proper use, steep them in lime-water a few days, or pay them over with a little of the lime, along with the water. The hotter it is used after the lime is slaked, so much the better. Lime-water is made by slaking the lime-shells in water. This will answer equally well for round trees. The author of this method says, he has been, for a great number of years past, used to take down and repair both ancient and modern buildings, in which a good deal of Scots fir had been used, but he never found one inch either rotten or worm-eaten, where it was in the least connected with lime, and kept dry; on the contrary, he found it more hard and firm than when first used.

BUILDING.

1142. *Artificial Stone Floors and Coverings for Houses, as made in some parts of Russia.*—The floors and coverings of houses, in some parts of South Russia, are made in the following manner:—For a floor, let the ground be made even, and some stones of any shape be put on, and, with a heavy wooden rammer, force or beat the stones into the ground, continuing to beat the floor till it become quite even, and incapable of receiving any farther impression. Then run lime, immediately after it has been slaked, through a fine sieve, as expeditiously

as possible, because exposure to the air weakens the lime. Mix two parts of coarse sand, or washed gravel, (for there must be no earth in it,) with one part of lime-powder, and wet them with bullocks' blood; so little moist, however, as merely to prevent the lime from blowing away in powder; in short, the less moist, the better. Spread it on the floor, and, without a moment's loss of time, let several men be ready, with large beetles, to beat the mixture, which will become more and more moist by the excessive beating requisite. Then put on it some of the dry sand and lime, mixed, and beat it till like a stone. If required to be very fine, take for the next layer finely-sifted lime, with about a tenth part of rye-flour, and a little ox-blood; beat it till it becomes a very stiff mortar, and then smooth it with a trowel. The next day, again smooth it with a trowel; and so continue to do, daily, till it be entirely dry. When it is quite dry and hard, rub it over with fresh ox-blood, taking off all which it will not imbibe. No wet will penetrate this composition, which, however, after some time, is often painted with oil-colors. The whole floor appears as a single stone, and nothing will affect it. The drier it is used, the better, provided that, with much beating, it becomes like a very stiff mortar, and evidently forms a compact body. On flat tops of houses, the beetle, or rammers' ends, must be smaller, to prevent the rebounding of the boards and timber, which would crack the cement; but, when the thickness of a foot is laid on, it will beat more firmly. A thin coating of ox-blood, flour, and lime, being beat in large, strong, wooden troughs, or mortar, till it can be spread with a trowel, may be used without beating it again on the floor or house-top; but it must be very stiff, and used most expeditiously. Even frost will not affect it. With this composition, artificial stone may be made, rammed very hard into strong wooden frames of the required shape; particularly to turn arches for buildings of rammed earth. It is well known, that earth which is not too argillaceous, with only the moisture it has when fresh dug, on being rammed between frames of wood, till the rammer will no longer impress it, makes eternal walls; but a mass as hard as stone may be made with a little lime added to sand, horse-dung, and ox-blood. The more the lime is beaten, the moister it becomes; and it must contain so much moisture as to become, by beating, a solid mass, adhering in all its parts, and not remain crumbling, that will properly set as mortar. If there be too little moisture

at first, it will remain a powder; if there be too much, it will become a soft mortar. Lime is of no use, mixed with clay or vegetable earths; which, if well beaten, are stronger without it.

1143. *To cure Damp Walls.*—Boil two quarts of tar, with two ounces of kitchen-grease, for a quarter of an hour, in an iron pot. Add some of this tar to a mixture of slaked lime and powdered glass, which have passed through a flour-sieve, and been completely dried over the fire in an iron pot, in the proportion of two parts of lime and one of glass, till the mixture becomes of the consistence of thin plaster. The cement must be used immediately after being mixed, and therefore it is proper not to mix more of it than will coat one square foot of wall, since it quickly becomes too hard for use; and care must be taken to prevent any moisture from mixing with the cement. For a wall merely damp, a coating one-eighth of an inch thick is sufficient; but if the wall is wet, there must be a second coat. Plaster made of lime, hair, and plaster of Paris, may afterwards be laid on as a cement. The cement above described will unite the parts of Portland stone or marble, so as to make them as durable as they were prior to the fracture.

1144. *To increase the Durability of Tiles for covering Buildings.*—The following composition has been found to be of extraordinary durability, as a glazing or varnish for tiles. No sort of weather, even for a considerable length of time, has had any effect upon it. It prevents that absorption of water, by which common tiles are rendered liable to crumble into dust, hinders the shivering of tiles, and gives to red bricks a soft lustre, by which their appearance is much improved.

Over a weak fire heat a bottle of linseed oil, with an ounce of litharge, and a small portion of minium, till such time as a feather, used in stirring it, shall be burnt to the degree of being easily rubbed to powder between the fingers. Then take off the varnish, let it cool, clarify it from any impurities which may have fallen to the bottom, and heat it again. Having, in the mean time, melted from three to four ounces of pitch, mix this with the warm varnish. The specific gravity of the pitch hinders it from mingling thoroughly with the varnish, though it even remain so long upon the fire as to be evaporated to considerable thickness. It is not till the varnish be cooled, nearly to the consistency of common syrup, that this

effect takes place in the requisite degree. If it be too thick, let hot varnish be added, to bring it to the proper consistency; if it be too thin, add melted pitch. Next, put in as much brick-dust as the mixture can receive, without being made too thick for convenient use. The finer the brick-dust, and the easier it is to be moved with the point of a pencil, so much the fitter will it be to fill up the chinks and unevenness of the bricks, and, as it were, to incorporate itself with their substance. Prepare the brick-dust in the following manner:—Take a certain number of pieces of good brick, beat them into dust, and sift the dust in a hair-sieve. Then, to improve its fineness, rub it on a stone with water, dry it, and mix it with the varnish in the necessary proportion. If the brick-dust be naturally of too dark a color, a portion of some that is brighter may be added, to make the color clear.

It is to be laid on the tiles in the same manner in which oil-colors in general are put upon the substances on which they are applied. The composition must be heated from time to time, when it is to be used.

1145. *Economical Method of employing Tiles for the Roofs of Houses.*—A French architect (M. Castala) has invented a new method of employing tiles for the roofs of houses, so as to save one half of the quantity usually employed for that purpose. The tiles are made of a square instead of an oblong form; and the hook that fastens them is at one of the angles, so that, when fastened to the laths, they hang down *diagonally*, and every tile is covered one-fifth part on two sides by the superior row.

1146. *To improve Chimney Fire-places, and increase the Heat, by a proper attention to the Setting of Stoves, Grates, &c.*—The best materials for setting stoves or grates are fire-stone and common bricks and mortar. Both materials are fortunately very cheap. When bricks are used, they should be covered with a thin coating of plaster, which, when it is dry, should be white-washed. The fire-stone should likewise be white-washed when that is used; and every part of the fire-place, which is not exposed to being soiled and made black by the smoke, should be kept as white and clear as possible. As *white* reflects more heat, as well as more light, than any other color, it ought always to be preferred for the inside of a chimney fire-place;

and *black*, which reflects neither light nor heat, should be more avoided.

1147. *To cure Smoky Chimneys.*—Put on the top of the chimney a box, in each of whose sides is a door hanging on hinges, and kept open by a thin iron rod running from one to the other, and fastened by a ring in each end to a staple. When there is no wind, these doors are at rest, and each forms an angle of 45 degrees, which is decreased on the windward side in proportion to the force of the wind, and increased in the same ratio on the leeward side. If the wind be very strong, the door opposed to the wind becomes close, while the opposite one is opened as wide as it can be. If the wind strikes the corner of the box, it shuts two doors and opens their opposites. This scheme has been tried with success in a chimney which always filled the room with smoke, but which, since adopted, has never smoked the room at all. The expense is trifling, and the apparatus simple.

1148. *A Preparation to preserve Wood from catching Fire, and to preserve it from Decay.*—A member of the Royal Academy at Stockholm says, in the memoirs of that academy, "Having been within these few years to visit the alum mines of Loswers, in the province of Calmar, I took notice of some attempts made to burn the old staves of tubs and pails that had been used for the alum works. For this purpose they were thrown into the furnace, but those pieces of wood which had been penetrated by the alum did not burn, though they remained for a long time in the fire, where they only became red; however, at last they were consumed by the intenseness of the heat, but they emitted no flame."

He concludes, from this experiment, that wood, or timber, for the purpose of building, may be secured against the action of fire, by letting it remain for some time in water, wherein vitriol, alum, or any other salt has been dissolved, which contains no inflammable parts.

To this experiment it may be added, that wood, which has been impregnated with water, wherein vitriol has been dissolved, is very fit for resisting putrefaction, especially if afterwards it is brushed over with tar, or some kind of paint; in order to this, the wood must be rubbed with very warm vitriol water, and afterwards left to dry, before it is painted or tarred.

Wood prepared in this manner will for a long time resist the injuries of the air, and be preserved in cellars and other low moist places. It is to be observed, that if a solution of vitriol is poured on such parts of timber where a sort of champignons are formed by moisture, and rubbed off, none will ever grow there again.

By boiling, for some hours, the spokes of wheels in vitriol water, they are not subject to rottenness in the parts where they enter the stocks. After boiling them in this manner, they are dried as perfectly as possible, and then, in the accustomed way, painted with oil color.

1149. *Cheap and excellent Composition for preserving Weather Boarding, Paling, and all other Works liable to be injured by the Weather.*—Well burnt lime will soon become slaked by exposure in the open air, or even if confined in a situation not remarkably dry, so as to crumble of itself into powder. This is called air-slaked lime, in contradistinction to that which is slaked in the usual way, by being mixed with water. For the purpose of making the present composition to preserve all sorts of woodwork exposed to the vicissitudes of the weather, take three parts of this air-slaked lime, two of wood-ashes, and one of fine sand; pass them through a fine sieve, and add as much linseed-oil to the composition as will bring it to a proper consistence for working with a painter's brush. As particular care must be taken to mix it perfectly, it should be ground on a stone slab with a proper muller, in the same manner as painters grind their white-lead, &c.; but where these conveniences are not at hand, the ingredients may be mixed in a large pan, and well beat up with a wooden spatula. Two coats of this composition being necessary, the first may be rather thin; but the second should be as thick as it can conveniently be worked. This most excellent composition for preserving wood, when exposed to the injuries of the weather, is highly preferable to the customary method of laying on tar and ochre.

1150. *To make durable Barn-floors.*—A durable barn-floor may be made of well-burnt polished brick on edge, placed in the herring-bone form, on a pavement of stone three inches and a half in thickness; or oaken plank two inches and a half in thickness; or even of well-tempered indurated loam, of a proper substance, not less than eight inches, and laid upon dry

materials or bottom. Any of them will make a durable barn-floor, provided it is kept free from wet, wagon-wheels, and horses' feet. The best threshing-floor for small farms of 150 acres is made of sound plank. In large farms (say 300 acres and upwards) the threshing machine should supersede the flail.

1151. *The Virtues of Poplar Wood for the Flooring of Granaries.*—The Lombard poplar is recommended as a timber adapted for flooring granaries, which is said to prevent the destruction of corn by weevils and insects. Poplar wood will not easily take fire.

1152. *Improved Ventilators for Rooms.*—Different methods are adopted for ventilating, or changing the air of rooms.—Thus:

Mr. Tid admitted fresh air into a room by taking out the middle upper sash pane of glass, and fixing in its place a frame box, with a round hole in its middle, about six or seven inches diameter, in which hole is fixed, behind each other, a set of sails, of very thin, broad copper plates, which spread over and cover the circular hole, so as to make the air, which enters the room, and turning round these sails, to spread round in thin sheets sideway, and so not to incommode persons by blowing directly upon them, as it would do if it were not hindered by the sails. This well-known contrivance has generally been employed in public buildings, but is very disagreeable in good rooms; instead, of it, therefore, the late Mr. Whitehurst substituted another, which was, to open a small square or rectangular hole, in the party wall of the room, in the upper part, near the ceiling, at a corner or part distant from the fire; before it he placed a thin piece of metal, or pasteboard, &c., attached to the wall in its lower part, just before the hole, but declining from it upwards, so as to give the air that enters by the hole a direction upwards against the ceiling, along which it sweeps, and disperses itself through the room, without blowing in a current against any person. This method is very useful to cure smoky chimneys, by thus admitting, conveniently, fresh air. A picture, placed before the hole, prevents the sight of it from disfiguring the room.

1153. *Approved Method of removing Bees.*—Set the hive where there is only a glimmering light; turn it up; the queen

first makes her appearance; once in possession of her, you are master of all the rest; put her into an empty hive, whither she will be followed by the other bees.

1154. *Useful Method of preserving Bees.*—Instead of destroying whole swarms in their hives, to get the honey when the hives are full, they clear them out into a fresh hive, while they take the combs out of the old one; and they prevent their perishing in winter by putting a great quantity of honey into a very wide earthen vessel, covering its surface with paper, exactly fitted on, and pricked full of holes with a large pin; this being pressed by the weight of the bees, keeps a fresh supply continually arising. Their most fatal destruction by severe cold they prevent, by taking as many large tubs as they have hives, and knocking out the heads, they set the other end in the ground, laying a bed of dry earth or chopped hay in it, of six inches deep; over this they place the head knocked out, and then make a small wooden trough for the passage of the bees; this is transfixed through a hole cut through each side of the tub, at such a height as to lay on the false bottom, on which is placed the covered dish of honey for the food of the bees, leaving a proper space over this, covered with strong matting; they then fill up the tub with more dry earth, or chopped hay, heaping it up in the form of a cone, to keep out the rain, and wreathing it over with straw on account of the warmth.

1155. *Sir Ashton Lever's method of preserving Birds, Beasts, Fishes, &c.*—Beasts. Large beasts should be carefully skinned, with the horns, skull, jaws, tail, and feet, left entire; the skins may then either be put into a vessel of spirit, or else rubbed well in the inside with the mixture of salt, alum, and pepper, hereafter mentioned, and hung to dry. Small beasts may be put into a cask of rum, or any other spirit.

Birds. Large birds may be treated as large beasts, but must not be put in spirits. Small birds may be preserved in the following manner:—Take out the entrails, open a passage to the brain, which should be scooped out through the mouth; introduce into the cavities of the skull, and the whole body, some of the mixture of salt, alum, and pepper, putting some through the gullet and whole length of the neck; then hang the bird in a cool, airy place—first by the feet, that the body may be impregnated by the salts, and afterwards by a thread through the

under mandible of the bill, till it appears to be sweet; then hang it in the sun, or near a fire: after it is well dried, clean out what remains loose of the mixture, and fill the cavity of the body with wool, oakum, or any soft substance, and pack it smooth in paper.

Fishes, &c. Large fishes should be opened in the belly, the entrails taken out, and the inside well rubbed with pepper, and stuffed with oakum. Small fishes put in spirit, as well as reptiles and insects, except butterflies and moths; and any insects of fine colors, should be pinned down in a box prepared for that purpose, with their wings expanded.

1156. *Birds that have been Shot.*—When fresh-killed, observe to put tow into the mouth, and upon any wound they may have received, to prevent the feathers being soiled; and then wrap it smooth, at full-length, in paper, and pack it close in a box. If it be sent from a great distance, the entrails should be extracted, and the cavity filled with tow dipped in rum or other spirit. The following mixture is proper for the preservation of animals:—One pound of salt, four ounces of alum, and two ounces of pepper, powdered together.

1157. *To preserve Game in Hot Weather.*—Game or poultry may be preserved for a long time, by tying a string tight round the neck, so as to exclude the air, and by putting a piece of charcoal into the vent.

1158. *Russian method of preserving Fish.*—When the Russians desire to keep fish perfectly fresh, to be carried a long journey in a hot climate, they dip them into hot bees'-wax, which acts like an air-tight covering. In this way they are taken to Malta, even sweet in summer.

PART VII.

MANY THINGS.

Choice and Cheap Cookery—New Receipts—Southern Dishes—Gumbo, &c.—Home-made Wines, &c.—Dairy—Coloring—Diet—Health, &c.

1159. *To preserve Ginger.*—Take green ginger, pare it with a sharp knife, and then throw it into cold water as pared, to keep it white; then boil it till tender, in three waters, at each change putting the ginger into cold water. For seven pounds of ginger, clarify eight pounds of refined sugar; when cold, drain the ginger, and put it into a pan, with enough of the syrup to cover it, and let it stand two days; then pour the syrup to the remainder of the sugar, and boil it some time; when cold, pour it on the ginger again, and set it by for three days; then boil the syrup again, and pour it hot over the ginger. Proceed thus till you find the ginger rich and tender, and the syrup is highly flavored. If you put the syrup on hot at first, or if too rich, the ginger will shrink, and not take the sugar.

1160. *Orange Syrup*—Is so easily made, and can be used so constantly with advantage, that no housekeeper should be without it. Select ripe and thin-skinned fruit; squeeze the juice through a sieve; to every pint, add a pound a half of powdered sugar; boil it slowly, and skim as long as any scum rises; you may then take it off, let it grow cold, and bottle it off. Be sure to secure the corks well. Two table-spoonfuls of this syrup, mixed in melted butter, make an admirable sauce for a plum or butter-pudding; and it imparts a fine flavor to custards.

1161. *Apple or Quince Jelly.*—Pare, quarter, and core the apples; put them in a sauce-pan, with enough water to cover

them only; let them boil five minutes; put them in a bag, and let them drain until the next day. To one pint of juice, put one pound of sugar, and boil it from fifteen to twenty minutes.

[*Cranberry Jelly may be made in the same way.*]

1162. *Brandy Cherries.*—Take the nicest carnation cherries, and trim them, leaving a short stem to keep in the juice; wash and wipe them tenderly, and put them into wide-mouthed bottles. Make a good syrup, and, when it is nearly done, add a pint and a half of French brandy to one pint of syrup; mix it thoroughly, and, when cold, pour it over the cherries. If carefully sealed, the fruit will be good for years.

1163. *Brandy Peaches.*—Drop the peaches in weak, boiling lye; let them remain till the skin can be wiped off; make a thin syrup, and let it cover the fruit; boil the fruit till they can be pierced with a straw; take it out; make a very rich syrup, and add, after it is taken from the fire, and while it is still hot, an equal quantity of brandy. Pour this, while it is still warm, over the peaches in the jar. They must be covered with it.

1164. *Brandied Peaches—an excellent way.*—After having removed the skin in the usual manner, by using *lye*, and throwing them in cold water, weigh the peaches, and put them in a stone jar—allowing room at the top for three-quarters of a pound of sugar for each pound of peaches; then pour over enough white brandy to cover the fruit. Set the jar in a pot of cold water, and let it remain over the fire till the *brandy* comes to a scald. When they are cold, they may either be put in glass jars, and tied down with bladder, or left in the same jar.

1165. *Tomato Catchup.*—To one gallon of skinned tomatoes, add four table-spoonfuls of salt; four table-spoonfuls of black pepper, ground fine; half a table-spoonful of allspice, ground fine; three table-spoonfuls of mustard; eight pods of red pepper. Simmer it slowly in sharp vinegar, in a pewter vessel, three or four hours; then strain it through a wire-sieve, and bottle it up. When cold, seal up the corks, and it will last for years.

1166. *Green Tomato Pickle.*—Cut in thin slices one peck of green tomatoes; sprinkle them with salt, and let them stand a

day or two. Slice ten or twelve small onions. Mix together one bottle or small tin box of mustard; half an ounce of mustard-seed; one ounce of cloves; one ounce of pimento; two ounces of turmeric. Put in the kettle a layer of tomatoes, then one of onions and spice, till all are in. Cover it with good vinegar, and let it simmer till the tomatoes are quite clear.

1167. *French Mustard.*—Put on a plate, one ounce of the best powdered mustard; a salt-spoonful of salt; a few leaves of tarragon; and a clove of garlic, minced fine. Pour on it, by degrees, sufficient vinegar to dilute it to the proper consistency; about a wine-glassful; mix it with a wooden spoon. Do not use it in less than twenty-four hours.

1168. *India Pickle.* (*E. R.*)—Put two hundred gherkins, three pints of small onions, one quart of nasturtiums, one quart of radish-pods, 1 quartern of string-beans, six cauliflowers, and two hard, white cabbages, sliced, into a pan, and sprinkle them with salt—the onions having been previously peeled, and laid in salt and water for a week, to take off their strength. Then, after a day or two, take them out of the pan, and dry them thoroughly in a warm place, in the shade: they must be spread out separately. To two gallons of vinegar, put one ounce and a half of allspice, the same of long pepper and of white, and two ounces of ginger, tied up in muslin bags. When cold, mix with the vinegar one pound and a half of flour of mustard, and two table-spoonfuls of Cayenne pepper. Boil it well together, and pour it on the pickle. The vegetables mentioned, not being all procurable at the same time, may be added separately, at different periods, but they must all undergo the salting and drying process.

In choosing those vegetables, some discrimination may also be used. When in season, few things add a higher flavor to the pickle than the buds and flowers of the elder.

1169. *Horse-radish.*—Let the horse-radish lie one or two hours in cold water; then scrape off the skin, grate it, and moisten it with vinegar. Serve it with roast meat.

1170. *Oyster Gumbo.*—Mix well one table-spoonful of flour and one of lard, and brown the mixture in a frying-pan; take the liquor of two quarts of oysters, set it on the fire, and when

it boils, add the browned flour with some chopped leeks and parsley; then put in the oysters, and let the whole simmer for fifteen minutes; next sift into it a table-spoonful and a half of powdered sassafras, to give it the fillet; leave it two or three minutes longer on the fire, and serve it very hot. No spices, but black pepper. This dish will require more or less time to prepare, according to the ingredients of which it is to be composed. For chicken or turkey gumbo, the fowl must first be fricasseed. Any good cook will understand how to make a piquante and palatable stock, of whatever she may select for her gumbo.

1171. *Mayonnaise.*—Roast a pair of chickens or a turkey, in the morning, and put them away to settle the juices. Immediately before serving the dish, carve the fowls, and put them compactly into a dish; take the yolks of six eggs, and pour, in a very fine and continued stream upon them, half a bottle of olive oil, and stir the eggs one way, till they are creamed; then put half a tea-spoonful of vinegar into this dressing, and having put pepper, salt, and a little vinegar on the fowl, pour the dressing over it, and arrange all over it bunches of cool, fresh lettuce. Garnish with hard eggs.

1172. *Jambalayâ*—Cut up, and stew till half done, a fowl, brown or white; then add rice, and a piece of ham well minced; this must be left on the fire till the rice has taken up the liquid; the roundness of the grain must be preserved, yet the dish must not be hard and dry. It is served in a heap, on a flat dish. Pepper and salt the only seasoning.

Southern children are very fond of this essentially home-dish. It is said to be of Indian origin. Wholesome as it is palatable, it makes part of almost every Creole dinner.

1173. *Imitation of Mock Turtle.*—Put into a pan a knuckle of veal, two fine cow-heels or two calf's feet, two onions, a few cloves, peppers, berries of allspice, mace, and sweet herbs; cover them with water, then tie a thick paper over the pan, and set it in an oven for three hours. When cold, take off the fat very nicely; cut the meat and feet into bits an inch and a half square; remove the bones and coarse parts, and then put the rest on to warm, with a large spoonful of walnut and one of mushroom catchup, half a pint of sherry or Madeira wine, a little mushroom-powder, and the jelly of the meat. When hot, if it

wants any more seasoning, add some; and serve with hard eggs, forcemeat balls, a squeeze of lemon, and a spoonful of soy. This is a very easy way, and the dish is excellent.

1174. *Oyster Sausages.*—Beard, rinse well in their strained liquor, and mince, but not finely, three dozen and a half of plump oysters, and mix them with ten ounces of fine bread-crumbs, and ten of beef-suet chopped extremely small; add a salt-spoonful of salt, and one of pepper, or less than half the quantity of cayenne, twice as much pounded mace, and the third of a small nutmeg grated; moisten the whole with two unbeaten eggs, or with the yolks only of three, and a dessert-spoonful of the whites. When these ingredients have been well worked together, and are perfectly blended, set the mixture in a cool place for two or three hours before it is used; make it into the form of small sausages or sausage-cakes, flour and fry them in butter, of a fine light brown; or throw them into boiling water for three minutes, drain, and let them become cold; dip them into egg and bread-crumbs, and broil them gently until they are lightly colored. A small bit should be cooked and tasted before the whole is put aside, that the seasoning may be heightened if required. The sausages thus made are very good.

Small plump oysters, three dozen and a half; bread-crumbs, ten ounces; beef-suet, ten ounces; seasoning of salt, cayenne, pounded mace, and nutmeg; unbeaten eggs, two, or yolks of three.

Obs.—The fingers should be well floured for making up these sausages.

1175. *New England Chowder.*—Have a good haddock, cod, or any other solid fish, cut it in pieces three inches square, put a pound of fat salt pork in strips into the pot, set it on hot coals, and fry out the oil. Take out the pork, and put in a layer of fish, over that a layer of onions in slices, then a layer of fish with slips of fat salt pork, then another layer of onions, and so on alternately, until your fish is consumed. Mix some flour with as much water as will fill the pot; season with black pepper and salt to your taste, and boil it for half an hour. Have ready some crackers soaked in water till they are a little softened; throw them into your chowder five minutes before you take it up. Serve in a tureen.

1176. *Curing Hams—the Newbold Receipt.*—Take seven pounds coarse salt, five pounds brown sugar, two ounces pearl ash, 4 gallons of water. Boil all together, and scum the pickle well when cold. Put it on the meat. Hams remain in it eight weeks—beef three weeks. The above is for one hundred and ninety pounds weight.

1177. *A Pickle that will keep for years, for hams, tongues, or beef, if boiled and skimmed between each parcel of them.*—To two gallons of spring water put two pounds of coarse sugar, two pounds of bay and two and a half pounds of common salt, and half a pound of saltpetre, in a deep earthen glazed pan that will hold four gallons, and with a cover that will fit close. Keep the beef or hams as long as they will bear before you put them into the pickle; and sprinkle them with coarse sugar in a pan, from which they must drain. Rub the hams, &c., well with the pickle, and pack them in close, putting as much as the pan will hold, so that the pickle may cover them. The pickle is not to be boiled at first. A small ham may lie fourteen days, a large one three weeks; a tongue twelve days, and beef in proportion to its size. They will eat well out of the pickle without drying. When they are to be dried, let each piece be drained over the pan; and when it will drop no longer, take a clean sponge and dry it thoroughly. Six or eight hours will smoke them, and there should be only a little sawdust and wet straw burnt to do this; but if put into a baker's chimney, sew them in a coarse cloth, and hang them a week. Add two pounds of common salt and two pints of water every time you boil the liquor.

1178. *To smoke Hams and Fish on a small scale.*—Drive the ends out of an old hogshead or barrel; place this over a heap of sawdust of green hard wood, in which a bar of red-hot iron is buried; or take corn-cobs, which make the best smoke; place them in a clean iron kettle, the bottom of which is covered with burning coals; hang the hams, tongues, fish, &c., on sticks across the cask, and cover it, but not closely, that the cobs or sawdust may smoulder slowly, but not burn.

1179. *Onion Sauce.*—Peel the onions, and boil them tender; squeeze the water from them; chop them; and pour on them butter that has been carefully melted, together with a little

good milk, instead of water. Boil it up once. A turnip boiled with the onions, makes them milder.

1180. *Sauce Robert.*—Cut into small dice, four or five large onions, and brown them in a stew-pan, with three ounces of butter, and a dessert-spoonful of flour. When of a deep yellow-brown, pour to them half a pint of beef or of veal-gravy, and let them simmer for fifteen minutes; skim the sauce; add a seasoning of salt and pepper, and, at the moment of serving, mix in a dessert-spoonful of made-mustard.

Large onions, four or five; butter, three ounces; flour, a dessert-spoonful: ten to fifteen minutes. Gravy, half a pint: fifteen minutes. Mustard, a dessert-spoonful.

1181. *Tomato Sauce.*—Crush half a dozen, more or less, of very ripe, red tomatoes; pick out the seeds, and squeeze the water from them; put them into a stew-pan, with two or three finely-sliced shalots, and a little gravy: simmer till nearly dry; when add half a pint of brown sauce, and simmer twenty minutes longer; then rub it through a tammy into a clean stew-pan; season with Cayenne pepper and salt, a little glaze, and lemon-juice; simmer a few minutes, and serve. Tarragon or Chili vinegar are sometimes added; and sliced onions may be substituted for the shalots.

1182. *Brown Caper Sauce.*—Thicken half a pint of good veal or beef-gravy, as directed for Sauce-Tournée; and add to it two table-spoonfuls of capers, and a dessert-spoonful of the pickle-liquor, or of Chili vinegar, with some Cayenne, if the former be used, and a proper seasoning of salt.

Thickened veal, or beef-gravy, half a pint; capers, two table-spoonfuls; caper liquor, or Chili vinegar, one dessert spoonful.

1183. *Horse-radish Sauce.*—Scrape, finely, a stick of horse-radish into about half a pint of brown sauce and a gravy-spoonful of vinegar; simmer, and season with salt and sugar. This sauce is eaten with hot roast beef.

1184. *Sauce for cold Roast Beef.*—Mix scraped horse-radish, made-mustard, and vinegar, and sweeten with white sugar.

1185. *Mint Sauce.*—Mix vinegar and brown sugar, and let it stand at least an hour; then add chopped mint, and stir together. It should be very sweet.

1186. *Mild Mustard.*—Mustard, for instant use, should be mixed with milk, to which a spoonful or two of very thin cream may be added.

1187. *Mustard, the common way.*—The great art of mixing mustard, is to have it perfectly smooth, and of a proper consistency. The liquid with which it is moistened, should be added to it in small quantities, and the mustard should be well rubbed, and beaten with a spoon. Mix half a tea-spoonful of salt with two ounces of the flour of mustard, and stir to them, by degrees, sufficient boiling water to reduce it to the appearance of a thick batter. Do not put it into the mustard-glass until cold. Some persons like half a tea-spoonful of sugar, in the finest powder, mixed with it. It ought to be sufficiently diluted always to drop easily from the spoon.

1188. *Parsley and Butter.*—Scald a large handful of parsley in boiling water that has some salt in it; when tender, chop it fine, and stir it into some rather thick melted butter. There should be sufficient parsley to make the sauce green; and the parsley should not be put to the melted butter until about to be served, otherwise it will turn brown.

1189. *To make Sage and Onion Stuffing, for Roast Pork, Geese, Ducks, &c.*—To make this stuffing, take two middling-sized onions, peel them, and boil them for about ten minutes in plenty of water; next take as much dry sage-leaves, as, when rubbed into powder and sifted through the top of your flour-dredger, will fill a table-spoon. When the onion has boiled about ten minutes, squeeze it dry, chop it fine, and mix it with the crumbled sage; then add to them a tea-cupful of stale, white bread-crumbs, with a tea-spoonful of black pepper, a very little pinch of Cayenne, and a salt-spoonful of salt. Mix all well together, and it is ready.

1190. *Sippets of Bread, for Garnishing.*—Cut the crumb of a stale loaf in slices a quarter of an inch thick: form them into diamonds or half-diamonds, or in any other way: fry them in

fresh butter. Dry them well, and place them around the dish to be garnished.

1191. *Seasoning for Stuffing.*—One pound of salt, dried and sifted; half an ounce of ground white pepper; two ounces of dried thyme; one ounce of dried marjoram; and one ounce of nutmeg. When this seasoning is used, parsley only is required to be chopped in sufficient quantity to make the stuffing green. The proportions are—half a pound of bread-crumbs; three eggs; a quarter of a pound of suet; half an ounce of seasoning; and the peel of half a lemon, grated.

1192. *White Bread-Crumbs.*—Put the crumb of very white bread into a slow oven or screen, and let it dry without color; beat and sift it; keep it in a close-covered pan in a dry, warm place: everything looks well, done with it. The crust may be dried, beaten, and sifted, for frying and garnishing.

When crumbs are not prepared till wanted, the bread is never in a proper condition; so that the crumbs are not only coarse and vulgar, but a sponge for fat, which shows bad taste, as well as being wasteful.

1193. *Panada*—Is indispensable in making good farce of any kind; it is even better for it than Naples' biscuit, and is made as follows:—Steep a sufficient quantity of good stale bread-crumb in cream or stock; set it over the fire in a sauce-pan, and work it with a wooden spoon till it is as smooth and dry as a stiff paste: let it cool, and beat it with a yolk or two, according to the quantity, in a mortar: it is then ready to be put into all kinds of farces.

CAKES, BREAD, PIES, AND PUDDINGS.

1194. *Wine Crust for Cakes or Pastry—a foreign Receipt.*—Pour gradually to the well-beaten yolks of three fresh eggs, cleared from the specks, a quarter of a pint of light white wine (Marsala will serve for the purpose well enough), stirring them briskly as it is added; throw in half a salt-spoonful of salt, and an ounce and a half of pounded sugar; and when this last is dissolved, or nearly so, add the mixture to as much flour as will be required to form a smooth, firm paste: about three-

quarters of a pound will be sufficient, unless the eggs should be of an unusual size. Roll it out, cut it asunder, and spread one half with eight ounces of butter, cut small; lay the other half of the paste upon it, and roll them together as lightly as possible; turn the paste on the board, and fold the two ends over each other, so as to make the whole of equal thickness; roll it quite thin, and repeat the folding once or twice, touching the paste in doing it as little as can be, and rolling it *very* lightly. It may be used for any kind of sweet pastry; or it may be served in the form of cakes, either iced or plain; these again may be adapted to the second course, by spreading the under-sides of one half with rich preserve, and pressing the others on them.

1195. *Pic-nic Biscuits.*—Work, very small, two ounces of fresh butter into a pound of flour; reduce to the finest powder, and mix, intimately, half a salt-spoonful of very pure carbonate of soda (Howard's is the best), with two ounces of sugar; mingle these thoroughly with the flour, and make up the paste with a few spoonfuls of milk; it will require scarcely a quarter of a pint. Knead it very smooth, roll it a quarter of an inch thick, cut it in rounds about the size of the top of a *small* wine-glass; roll these out thin, prick them well, lay them on lightly-floured tins, and bake them in a gentle oven until they are crisp quite through. As soon as they are cold put them into dry canisters. The sugar can be omitted at pleasure. If thin cream be used instead of milk, in making the paste, it will much enrich the biscuits; but this would often not be considered an improvement, as plain simple biscuits are generally most in favor.

Carraway seeds or ginger can be added, to vary these at pleasure. The proportion of soda used should be too small to be perceptible, even to the taste: it will be no disadvantage to use milk with it which is slightly acid.

1196. *A good Soda Cake.*—Rub half a pound of good butter into a pound of fine dry flour, and work it very small; mix well with these half a pound of sifted sugar, and pour to them first a quarter of a pint of boiling milk, and next three well-whisked eggs; add some grated nutmeg, or fresh lemon-rind, and eight ounces of currants; beat the whole well and lightly together, and the instant before the cake is moulded and set

into the oven, stir to it a tea-spoonful of carbonate of soda in the finest powder. Bake it from an hour to an hour and a quarter, or divide it in two, and allow from half to three-quarters of an hour for each cake.

Flour, one pound; butter, three ounces; sugar, eight ounces, milk, full quarter-pint; eggs, three; currants, half a pound; carbonate of soda, one tea-spoonful; one hour to one and a half. Or, divided, a half to three-quarters of an hour—moderate oven.

Obs.—This, if well made, resembles a pound-cake, but is much more wholesome. It is very good with two ounces less of butter, and with caraway-seeds or candied orange or citron substituted for the currants.

1197. *To make Fine Pancakes, Fried without Butter or Lard.*—Take a pint of cream and six new-laid eggs; beat them well together; put in a quarter of a pound of sugar and one nutmeg or a little beaten mace—which you please, and so much as will thicken—almost as much as ordinary pancake flour batter; your pan must be heated reasonably hot, and wiped with a clean cloth; this done, spread your batter thin over it, and fry.

1198. *To make Loaves of Cheese-curd.*—Take a porringer full of curds, and four eggs, whites and yolks, and as much flour as will make it stiff; then take a little ginger, nutmeg, and some salt; make them into loaves, and set them into an oven with a quick heat; when they begin to change color, take them out, and put melted butter to them, and some sack, and good store of sugar; and so serve.

1199. *Cheap Ginger Biscuits.*—Work into quite small crumbs three ounces of good butter, with two pounds of flour; then add three ounces of pounded sugar and two of ginger, in fine powder, and knead them into a stiff paste, with new milk. Roll it thin, cut out the biscuits with a cutter, and bake them in a slow oven until they are crisp quite through, but keep them of a pale color. A couple of eggs are sometimes mixed with the milk for them, but are no material improvement; an additional ounce of sugar may be used when a sweeter biscuit is liked. To make good ginger *cakes*, increase the butter to six ounces, and the sugar to eight, for each pound of flour, and wet the ingredients into a paste with eggs; a little lemon-grate will give it an agreeable flavor.

Biscuits—flour, two pounds; butter, three ounces; pounded sugar, three ounces; ginger, two ounces.

Cakes—flour, one pound; butter, six ounces; sugar, eight ounces; ginger, one ounce; three to four eggs; rind of half a lemon.

1200. *Ginger Snaps.*—Beat together half a pound of butter, and half a pound of sugar; mix with them half a pint of molasses, half a tea-cupful of ginger, and one pound and a half of flour.

1201. *Gingerbread.*—Mix together three and a half pounds of flour; three-quarters of a pound of butter; one pound of sugar; one pint of molasses; a quarter of a pound of ginger, and some ground orange-peel.

1202. *Raspberry Cakes.*—Take any quantity of fruit you please, weigh and boil it, and when mashed, and the liquor is washed, add as much sugar as was equal in weight to the raw fruit. Mix it very well *off* the fire till the whole is dissolved, then lay it on plates, and dry it in the sun. When the top part dries, cut it off into small cakes, and turn them on a fresh plate. When dry, put the whole in boxes, with layers of paper.

1203. *Rock Cakes.*—Mix together one pound of flour; half a pound of sugar; half a pound of butter; half a pound of currants or cherries, and four eggs, leaving out the whites of two; a little wine and candied lemon-peel are a great improvement.

1204. *Cup Cakes.*—Mix together five cups of flour; three cups of sugar; one cup of butter; one cup of milk; three eggs, well beaten; one wine-glass of wine; one of brandy, and a little cinnamon.

1205. *Jumbles.*—Take one pound of loaf-sugar, pounded fine; one pound and a quarter of flour; three-quarters of a pound of butter; four eggs, beaten light, and a little rose-water and spice; mix them well, and roll them in sugar.

1206. *Sponge Cake.*—Take the weight of the eggs in sugar; half their weight in flour, well sifted; to twelve eggs, add the grated rind of three lemons, and the juice of two. Beat the eggs carefully, white and yolks separately, before they are used. Stir the materials thoroughly together, and bake in a quick oven.

1207. *Apple Fritters.*—Pare and core some fine large pippins, and cut them into round slices. Soak them in wine, sugar, and nutmeg, for two or three hours. Make a batter of four eggs; a table-spoonful of rose-water; a table-spoonful of wine; a table-spoonful of milk; thicken with enough flour, stirred in by degrees, to make a batter; mix it two or three hours before it is wanted, that it may be light. Heat some butter in a frying pan; dip each slice of apple separately in the batter, and fry them brown; sift pounded sugar, and grate nutmeg over them.

1208. *A Charlotte Russe.*—It is very difficult to prepare this delicate dish, and we advise all inexperienced house-keepers not to undertake it without the superintendence of a professed cook.

Extract the flavor from a vanilla-bean, by boiling it in half a pint of milk. The milk must then be strained; and, when cold, mix with it a quarter of a pound of loaf sugar. Beat the yolks of four eggs very light, and stir them into the mixture. Heat it over the fire for five minutes, until it becomes a custard, but take great care that it does not boil. Boil an ounce of isinglass with a pint of water. The isinglass must be thoroughly dissolved before it is fit for use, and one-half of the water boiled away. The custard being cold, drain the isinglass into it, and stir them hard together. Leave them to cool, while you prepare the rest of the mixture. Whip a quart of cream to a froth, (the cream should be rich,) and mix it with the custard; in whipping the cream, great care should be taken to make it quite light; the safest way is, to remove the froth as fast as it gathers, with a strainer, until the whole is whipped.

Take two round slices of almond sponge-cake; glaze them with the beaten white of egg mixed with sugar. Lay one on the bottom of a circular mould, and reserve the other for the top.

Cut some more sponge-cake into long pieces; glaze them

carefully with the egg, and line the sides of the mould with them. Each piece should lap a little over the other, or the form will not be perfect. The custard will by this time be just beginning to congeal; pour it gently into the mould, and cover the top with the piece of cake which has already been prepared. The cake around the sides must be trimmed evenly, so that the upper piece will fit without leaving any vacancies.

Pound some ice, and throw it into a tub, covering it well with coarse salt. The mould should then be set into the midst of this ice, and must remain there an hour. Prepare an icing with powdered sugar and the beaten white of egg, flavoring it with lemon-juice, or essence of lemon, orange, or rose-water, according to the taste. The Charlotte Russe is then turned out upon a handsome dish, and iced over. It should be moved about as little as possible; and, to ensure success in preparing it, the utmost care must be taken to follow the above directions.

At large parties, a Charlotte Russe is as indispensable on the supper-table as ice-cream.

1209. *Batter Pudding.*—Take six ounces of fine flour, a little salt, and three eggs; beat it up well with a little milk, added by degrees till the batter is quite smooth: make it the thickness of cream: put it into a buttered pie-dish, and bake three-quarters of an hour; or, in a buttered and floured basin, tied over tight with a cloth: boil one hour and a half or two hours.

Any kind of ripe fruit that you like may be added to the batter—only you must make the batter a little stiffer. Blueberries, or finely-chopped apple, are most usually liked.

1210. *French Batter, (for frying Vegetables, and for Apple, Peach, or Orange Fritters).*—Cut two ounces of good butter into small bits; pour on it less than a quarter of a pint of boiling water; and, when it is dissolved, add three-quarters of a pint of cold water, so that the whole shall not be quite milk-warm: mix it then by degrees, and very smoothly, with twelve ounces of fine, dry flour, and a *small* pinch of salt, if the batter be for fruit-fritters, but with more, if for meat or vegetables. Just before it is used, stir into it the whites of two eggs beaten to a solid froth; but, previously to this, add a little water, should it appear too thick, as some flour requires more liquid than others, to bring it to a proper consistency.

Butter, two ounces; water, from three-quarters to nearly a pint; little salt; flour, three-quarters of a pound; whites of two eggs, beaten to snow.

1211. *Terrines of Rice, sweet and savory.*—Wash four ounces of Carolina rice in several waters, and leave it to soak for ten minutes; then put it into a common Nottingham jar, with a cover, and in shape, larger, considerably, in the middle than at the top—as those of narrower form and proportionably greater height will not answer so well. This jar may contain one quart or two, as the stove-oven in which it is to be placed, may permit. The smaller size has, on compulsion, been used for the present and following receipts—the iron-plate in the centre of the only oven which the writer had at command, preventing a larger one from standing in it. Pour on the rice an exact pint of new milk; add two ounces of pounded sugar, the slightest pinch of salt, and any flavor which may be liked. Stir the whole well for a minute or two; put on the cover of the jar; make a bit of paste with flour and water, sufficient to form a wide, thick band; moisten the side which is laid on the jar, and bind the edges of the cover and the jar together securely with it; tie brown paper over, and set it into the coolest part of the oven of the kitchen-range. Bake the rice *gently* for two hours and a quarter at the least, and turn the jar half-round once or twice while it is in the oven. Stir it lightly up, heap it on a hot dish, and send it to table. A *compôte* of fresh fruit is an admirable accompaniment to it.

1212. *Nutmeg Pudding.*—Pound, fine, two large or three small nutmegs; melt three pounds of butter, and stir into it half a pound of loaf-sugar, a little wine, the yolks of five eggs, well beaten, and the nutmegs. Bake on a puff-paste.

1213. *Wine Jelly.*—Soak four ounces of gelatine in one quart of cold water, for half an hour. In the meantime, mix with two quarts of cold water, six table-spoonfuls of brandy; one pint of white-wine; six lemons, cut up with the peel on; the whites and shells of six eggs, the whites slightly beaten, the shells crushed; three pounds of white sugar: then mix the gelatine with the other ingredients, and put them over the fire. Let it boil, without stirring, for twenty minutes. Strain it through a flannel-bag, without squeezing. Wet the mould in

cold water. Pour the jelly in, and leave it in a cool place for three hours.

1214. *Economics.*—It is often a matter of great convenience as well as of economy, to give a new and presentable form to the remains of dishes which have already appeared at table: the following hints may, therefore, be not unacceptable to some of our readers.

No. 1.—Calf's-feet jelly and good blanc-mange are excellent when just melted and mixed together, whether in equal or unequal proportions. They should be heated only sufficient to liquify them, or the acid of the jelly might curdle the blanc-mange. Pour this last, when melted, into a deep earthen bowl, and add the jelly to it in small portions, whisking them briskly together as it is thrown in. A small quantity of prepared cochineal—which may be procured from a chemist's—will serve to improve or to vary the color, when required. Many kinds of creams and custards also may be blended advantageously with the blanc-mange, after a little additional isinglass has been dissolved in it, to give sufficient firmness to the whole. It must be observed, that, though just liquid, either jelly or blanc-mange must be as nearly cold as it will become without thickening and beginning to set, before it is used for this receipt.

A sort of marbled or Mosaic mass is sometimes made by shaking together, in a mould, remnants of various-colored blanc-manges, cut nearly of the same size, and then filling it up with some clear jelly.

No. 2.—When a small part only of an open tart has been eaten, divide the remainder equally into triangular slices, place them at regular intervals round a dish, and then fill the intermediate spaces, and cover the tart entirely, with slightly-sweetened and well-drained whipped cream.

1215. *Pumpkin Pie.*—Stew the pumpkin dry, and make it like squash pie, only season rather higher. In the country, where this *real Yankee pie* is prepared in perfection, ginger is almost always used with other spices. There, too, part cream, instead of milk, is mixed with the pumpkin, which gives it a richer flavor.

1216. *Rhubarb Stalks, or Persian Apple*—Is the earliest ingredient for pies, which the spring offers. The skin should

be carefully stripped, and the stalks cut into small bits, and stewed very tender. These are dear pies, for they take an enormous quantity of sugar: seasoned like apple pies. Gooseberries, currants, &c., are stewed, sweetened, and seasoned like apple pies, in proportions suited to the sweetness of the fruit; there is no way to judge but by your own taste. Always remember, it is more easy to add seasoning, than to diminish it.

1217. *Superlative Mince-meat, for Pies.*—Take four large lemons, with their weight of golden pippins, pared and cored, of jar-raisins, currants, candied citron and orange-rind, and the finest suet, and a fourth-part more of pounded sugar. Boil the lemons tender, chop them small; but be careful first to extract all the pips; add them to the other ingredients, after all have been prepared with great nicety, and mix the whole *well* with from three to four glasses of good brandy. Apportion salt and spice by the preceding receipt. We think that the weight of one lemon, in meat, improves this mixture; or, in lieu of it, a small quantity of crushed macaroons, added just before it is baked.

1218. *Rolls.*—Rub into a pound of sifted flour, two ounces of butter; beat the whites of three eggs to a froth, and add a table-spoonful of good yeast, a little salt, and sufficient warm milk to make a stiff dough. Cover and put it where it will be kept warm, and it will rise in an hour. Then make it into rolls, or round cakes; put them on a floured tin, and bake in a quick oven or stove. They will be done in ten or fifteen minutes.

1219. *To make Yeast in the Turkish manner.*—Take a small tea-cupful of split or bruised peas, and pour on it a pint of boiling water, and set it in a vessel all night on the hearth, or any warm place. The next morning the water will have a froth on it, and be good yeast, and will make as much bread as two quartern loaves.

1220. *Dyspepsia Bread.*—The following receipt for making bread, has proved highly salutary to persons afflicted with dyspepsia, viz:—Three quarts unbolted wheat meal; one quart soft water, warm, but not hot; one gill of fresh yeast; one gill of molasses, or not, as may suit the taste; one teaspoonful of saleratus.

This will make two loaves, and should remain in the oven at least one hour; and when taken out, placed where they will cool gradually. Dyspepsia crackers can be made with unbolted flour, water, and saleratus.

1221. *Unfermented Bread.*—This keeps moist longer than bread made with yeast, and is more sweet and digestible. The brown bread made in this way is particularly recommended for dyspeptics. Take four pounds of flour, half an ounce avoirdupois of muriatic acid; the same of carbonate of soda; about a quart of water. First mix the soda and flour well together by rubbing in a pan; pour the acid into the water, and stir it well together. Mix all together to the required consistence and bake in a hot oven immediately. If instead of flour, unbolted meal should be used, take three pounds of meal; half an ounce avoirdupois of muriatic acid; the same of carbonate of soda; and water enough to make it of a proper consistence. Mix in the same way.

1222. *Rice Caudle.*—When the water boils, pour into it some ground rice mixed with a little cold water; when of a proper consistency, add sugar, lemon-peel, and cinnamon, and a glass of brandy to a quart. Boil all smooth.

Or:—Soak some Carolina rice in water an hour, strain it, and put two spoonfuls of the rice into a pint and a quarter of milk; simmer till it will pulp through a sieve, then put the pulp and milk into the saucepan, with a bruised clove, and a bit of white sugar. Simmer ten minutes: if too thick, add a spoonful or two of milk, and serve with thin toast.

1223.—*Johnny Cakes.*—Sift a quart of corn meal into a pan; make a hole in the middle, and pour in a pint of warm water. Mix the meal and water gradually into a batter, adding a tea-spoonful of salt; beat it very quickly, and for a long time, till it becomes quite light; then spread it thick and even on a stout piece of smooth board; place it upright on the hearth before a clear fire, with something to support the board behind, and bake it well; cut it into squares, and split and butter them hot.

They may also be made with a quart of milk, three eggs, one tea-spoonful of carbonate of soda, and one tea-cupful of wheaten flour; add Indian corn-meal sufficient to make a batter like that of pancakes, and either bake it in buttered pans, or upon a griddle, and eat them with butter.

1224. *Green Corn*—Must be boiled in clear water, with salt, from twenty minutes to half an hour; if old, it will require a longer time. It must be sent to table directly it is done, as it loses its sweetness by either boiling after it is done, or standing when dished.

(A tea-spoonful of saleratus boiled with corn is said to prevent sickness.)

1225. *Corn Oysters.*—One pint of grated green corn, one cup of flour, one dessert-spoonful of salt, one tea-spoonful of pepper, one egg.

Mix the ingredients together, drop, and fry them in hot lard. In taste they resemble fried oysters. They are an excellent relish for breakfast, and a good side-dish for dinner.

1226. *Sackatash, or Corn and Beans.*—Boil three pints of shelled beans, or a quarter of a peck of string beans, half an hour, pour off the water. Cut the corn off of four dozen ears—put it in the pot among the beans, add salt and pepper, and cover them with boiling water—boil all together twenty minutes. Rub flour into a large piece of butter and stir it in, then let it boil up once. Pour it into your tureen and send it to table.

1227. *Winter Sackatash.*—As in winter the beans and corn are both dried, they will have to be soaked over night. Parboil the beans in one or two waters, then add the corn, and boil all together until the beans are boiled to pieces, which will be several hours. Add a small piece of loaf sugar. Before dishing it for table, mix a large piece of butter with flour, stir it in and let it boil.

1228. *To make Curry Powders.*—Take one ounce of ginger, the same of coriander-seed, half an ounce of cayenne pepper, and two ounces of fine pale turmeric; these ingredients to be pounded separately to a fine powder, and then warmed by the fire, and mixed together. Put the powder into a wide-mouthed bottle, cork it well down, and put it into a dry place.

Those who dislike the flavor of turmeric may substitute saffron.

1229. *To prepare a Curry.*—The meat should be fresh and free from bone. Cut it into pieces which can be easily served. To each pound of meat add a table-spoonful of curry powder,

and about half the quantity of flour, and a little salt; mix these together, and rub a portion of it upon the meat before it is fried, the remainder afterwards. Fry the meat in a little butter. Fry onions a light brown, with a clove of garlic if approved; drain the fat from both the meat and onions; put them into a stewpan, and cover with boiling water; stew for twenty minutes, then rub the remainder of the powder smooth with a little cold water, add it, and let it stew for an hour, or according to the time necessary for the meat to be well done. If no other acid is used, stir in a little lemon-juice just before serving: place it in the centre of the dish, and put carefully boiled rice round it.

1230. *Lord Clive's Curry.*—Slice six onions, one green apple, and a clove of garlic; stew them in a little good stock until they will pulp, then add one tea-spoonful of curry-powder, a few table-spoonfuls of stock, a little salt, and a little cayenne pepper, half a salt-spoonful of each; stew in this gravy any kind of meat cut into small pieces, adding a piece of butter, the size of a walnut, rolled in flour.

1231. *To free Molasses from its sharp taste, and to render it fit to be used instead of Sugar.*—Take twenty-four pounds of molasses, twenty-four pounds of water, and six pounds of charcoal, coarsely pulverized: mix them in a kettle, and boil the whole over a slow wood fire. When the mixture has boiled half an hour, pour it into a flat vessel, in order that the charcoal may subside to the bottom: then pour off the liquid, and place it over the fire once more, that the superfluous water may evaporate, and the molasses be brought to their former consistence. Twenty-four pounds of molasses will produce twenty-four pounds of syrup.

1232. *To make Apple Molasses.*—Take new sweet cider just from the press, made from sweet apples, and boil it down as thick as West India molasses. It should be boiled in brass, and not burned, as that would injure the flavor. It will keep in the cellar, and is said to be as good, and for many purposes better than West India molasses.

1233. *To dress Chestnuts for Dessert.*—Let them be well roasted, and the husks taken off. Dissolve a quarter pound of sugar in a wine-glassful of water, and the juice of a lemon,

Put this and the chestnuts into a saucepan over a slow fire for ten minutes; add sufficient orange-flower water to flavor the syrup; serve in a deep dish, and grate sugar over them. To be handed round whilst quite hot.

1234. *To improve Claret Wine when acid.*—Place the cask on a stand for refining, put into it a quarter pound of chalk broken into small pieces. Let it remain one day, and then refine with the whites of six eggs, the shells broken, and a handful of salt; all these are to be mixed with some of the wine, and then thrown into the cask. The shells are not to be powdered, but simply crushed in the hand. The wine will be fit for bottling in two weeks. When bottled, it should be laid on the side. The bungs to be out as short a time as possible.

1235. *To improve Home-made wines.*—When there is a tendency to acidity in wine, add to it sugar-candy in the proportion of a pound to every four gallons; dissolve it, and put it into the cask, incorporating it well.

Poor wines may be improved by the addition of bruised raisins. If one ounce of powdered roche-alum be put into a cask of four gallons of wine, it will make it fine and brisk in ten days. Ripe medlars, or bruised mustard-seed, tied in a bag, will remove mustiness, or other disagreeable taste.

Pricked wines may be improved, if not recovered, by being racked off into a cask that has contained the same kind of wine. The cask should be first matched or sulphured; and, to every ten gallons of wine, put two ounces of oyster-shell powder, and half an ounce of bay-salt; stir it, and leave it a few days to fine; after which, rack it into another cask, also matched.

Burn dry walnuts over a charcoal fire, and when they are well lit, throw them into the wine, and bung up; in forty-eight hours they will correct the acidity. One walnut will suffice for every gallon of wine.

If bottled wine be *ropy*, shake it for twenty minutes, uncork it, and pour off the froth or scum, when the rest of the wine will be drinkable.

1236. *Casking.*—The casks should be washed with hot salt and water, then with hot water, and lastly with a portion of the fermented liquor made to boil.

After the liquor is removed into the cask, it will slowly fer-

ment, and some will evaporate. The cask should, however, be kept filled near the bung-hole, else the scum cannot be thrown out.

When the fret subsides, close the bung-hole, and bore a hole for a peg, to be withdrawn occasionally, else the cask may burst.

In the following Spring, determine whether you bottle or keep in wood another year; but wines that have been properly fermented, and promise well, will be improved by remaining in the cask another year. Then, if the wine wants rich flavor, add to twenty gallons, five pounds of sugar-candy.

1237. *Bottling.*—Brisk wines should be bottled on the approach of Spring.

If the wine be not fine enough, draw off a quart, in which dissolve isinglass in the proportion of half an ounce to twenty gallons, and pour the solution in at the bung-hole. In about three weeks, the liquor will be sufficiently clear for bottling.

In drawing off, be careful to tap the cask above the lees. The wine, to be fit for bottling, should be fine and brilliant, else it will never brighten after. When bottled, it should be stored in a cool cellar, and the bottles laid on their sides, and in sawdust; but, on no account set upright.

In making wines, it is a good plan to use two casks, one a very small one, from which the larger one may be filled up, during the fermentation.

1238. *Fining for Wine.*—Put an ounce of isinglass into a quart jug, with one pint of wine; stir it twice or thrice a day, and it will soon dissolve; when strain it through a sieve. A pint of this fining will be sufficient for a cask of twenty gallons.

When the fining is put into the cask, stir it up with a stick, taking care not to touch the bottom, so as to disturb the lees. Fill up the cask, if necessary, bung it down, and in a week the wine will be fit for bottling.

For white wine only, add and mix, as above, a quarter of a pint of milk to every gallon of wine. It may also be fined with the whites of eggs, beaten up with some wine, in the proportion of four whites to sixteen gallons of wine.

1239. *To sweeten Casks.*—If a cask, after the contents are drunk out, be well stopped, and the lees be allowed to remain

in it till it is again to be used, it will only be necessary to scald it; taking care, before you fill it, to see that the hoops are well driven. Should the air get into the cask, it will become musty, and scalding will not improve it; the surest way will be then to take out the head of the cask, to be shaved, then to burn it a little, and scald it for use. Or, put into the cask some quick lime and cold water, bung it down, shake it for some time, and then scald it; or, burn a *match* in it, and scald it.

Or, mix half a pint of the strongest sulphuric acid in an open vessel, with a quart of water, put it into the cask, and roll it well about; next day, add one pound of chalk, bung it down, and in three or four days the cask should be washed out with boiling water.

To prepare a match, melt some brimstone, and dip into it a long narrow piece of coarse linen cloth, or brown paper; when to be used, set fire to the match, put it in at the bung-hole of the cask, fastening one end under the bung, and let it remain for a few hours.

1240. *A Filtering Bag*—Will be useful in fining wines: it may be made of a yard of moderately-fine flannel, laid sloping, so as to have the bottom very narrow, and the top the full breadth; strongly sew up the side, and fold and sew the upper part of the bag about a broad wooden hoop, to be suspended by a cord fastened in three or four places.

1241. *Coloring Wines.*—In the coloring of wines, many substances have been used, and it is desirable to select such as may also communicate an agreeable flavor. Red colors are easily obtained from beet-root, logwood, or the berries of the elder; and every variety of yellow may be produced by the use of burnt sugar, which also gives an agreeable bitterness.

There is no end to the materials which have been used to give a flavor to wine. The flowers of elder, cowslips, clove-pinks, and mignonette, are well known. The shavings of *orris-root*, in the proportion of half an ounce to twenty gallons, will be found to communicate an agreeable perfume. The shavings should be tied in a linen bag, and suspended in the cask by a string, so as to be removable at pleasure, if, upon trial, it is found that the flavor is likely to be too predominant.

1242. *To check Fermentation.—Sulphate of potash* will stop fermentation. *One dram* is sufficient for a pipe of liquor. It will be useful to the *confectioner* to know, that by the use of the same salt, the fermentation of syrups and preserves may also be effectually prevented.

1243. *Currant Shrub ; easily made.*—To every quart of juice, add one pound of sugar, and one gill of brandy. Bottle and cork it tight. Do not put it over the fire.

1244. *Damson Wine.*—To four gallons of boiling water, add a peck of damsons ; stir this liquor twice every day. Let it stand for three days, and then strain the whole through a lawn sieve. Add nine pounds of loaf sugar, and three spoonsful of yeast ; after it has worked in a tub for three days, turn it into a cask, and add three quarts of elder syrup. Rack the wine in a fortnight. Put in two lemons, sliced, a quarter of a pound of loaf sugar, rubbed on the peel, and two pounds of raisins, chopped. Stop it close till March, and then bottle it.

1245. *Red Cherry Wine.*—Strip, when full ripe, any quantity of the finest red, or Kentish cherries, from their stalks, and stamp them, in the same manner as apples for cider, till the stones are broken. Put the whole into a tub, and cover it up closely for three days and nights ; then press it in a cider-press ; put the liquor again into a tub, and let it stand, covered as before, two days longer. Carefully take off the scum, without in the smallest degree disturbing the liquor, which is to be poured off the lees, into a different tub. After it has thus stood to clear another two days, it must again be cautiously skimmed, and the clear liquid poured off as before. If the cherries are, as they ought to be, quite ripe and sweet, a pound and a half of good sugar will be sufficient for each gallon of juice, which is to be well stirred in, and the liquor again closely covered up, without being any more disturbed till the next day ; then pour it carefully from the lees, as before, put it to stand, in the same manner, another day ; and then, with the like care, pour it off into the cask, or casks, in which it is intended to be kept. The above process must be often repeated, should the lees appear gross and likely to make the liquor fret. When entirely settled, stop it up, for at least seven or eight months ; then, if perfectly fine, put it in bottles ; if not, drain

it off into another vessel, and stop it up for six months longer, before you venture to bottle it, when it will want only age to equal, if not exceed, all foreign wines. It will, however, be best not to drink it till at least ten or twelve months old.

1246. *Rich Morella Cherry Wine.*—Having picked off from their stalks the ripest and soundest morella cherries, bruise them well, without breaking the stones, and let the whole stand twenty-four hours in an open vessel. Then press out all the juice, and for every gallon, add two pounds of fine loaf sugar. Put this wine into a cask, and when the fermentation ceases, stop it close. Let it stand three or four months, then bottle it, and in two months more it will be fit to drink. Some crack the stones, and hang them, with the bruised kernels, in a bag, from the bung, while the wine remains in the cask.

1247. *Incomparable Apricot Wine.*—Take eight pounds of ripe apricots, slice them into two gallons of spring water, and add five pounds of powdered loaf sugar. Boil them together for some time, without taking off the scum; then skim it off as it continues to rise, and put it in a clean sieve, over a pan, to save the liquor which comes from it. When the boiling liquor is as clear as it can be made from the dross of the sugar, pour it, with the drainings of the sieve, hot on the kernels of the apricots, which must be put with the stones into the pan, where it is intended the wine should be left to cool. Stir all well together, cover it up closely till it grows quite cool, and then work it with a toast and yeast. In two or three days, when it is found to be settled, fine it off into a cask, leaving it to ferment as long as it will. After it has done working, pour in a bottle of old hock, mountain, or sherry, and stop it up for six months; then, if very fine, bottle it, and keep it twelve months. This is indeed a most delicious wine.

1248. *To detect Sugar of Lead in Wines.*—The tincture of orpiment converts wine so adulterated to a black color.

1249. *Orange Wine.*—To ten gallons of water put twenty-eight pounds of loaf sugar, and the whites of six eggs. Boil them together for three-quarters of an hour, keeping the liquor well skimmed all the time, and then pour it hot into a tub, or large pan, over the peels of fifty Seville oranges. When it is

nearly cold, take three spoonsful of yeast, spread on a piece of toasted bread, and put in the liquor to make it ferment. After it has stood two or three days, pour it from the peels into the cask, with a gallon of orange juice, which takes about a hundred and twenty oranges. Let it remain in the cask till it has done hissing, when the fermentation will have ceased. Endeavor to proportion the size of the cask to the quantity, as it must be kept filled, so as to work out at the bung-hole. When the fermentation is over, draw off as much of the wine as will admit one quart of brandy for every five gallons of wine. It will be fit to bottle, or drink from the cask, in four or five months. This wine, if carefully made, according to these plain directions, will be found exquisitely delicious; and were it kept four or five years, would far surpass most of the best foreign wines, as they are usually sold in England.

1250. *Red Currant Wine.*—To eight gallons of water add twenty-four pounds of loaf sugar; boil the syrup and skim it, till the scum disappears. Have ready, picked from the stalks, two gallons of red currants, taking care not to bruise them. Pour the syrup, boiling hot, on the currants. Let it all stand till nearly cold; then add a teacupful of yeast. Let it ferment for two days; then strain it through a sieve, into the cask, and when the fermentation entirely ceases, bung it tight. It will be ready to bottle at the end of two months. Into each bottle put a small lump of sugar.

1251. *Raisin Wine.*—To every gallon of water weigh seven pounds of raisins; pick them from the stalks, and put them into a tub; pour the water on the fruit, and let it stand a fortnight or three weeks, stirring it several times a day. Strain it, and press the fruit very dry through hair bags, then put it into a barrel, but do not stop it close. In about four months rack it, and then put a little fresh fruit, and some brandy, into the barrel. A quart of brandy, and eight or ten pounds of fruit, are sufficient for twenty-five or thirty gallons of wine. When the wine is racked, draw it off into a tub, and pass the sediment that remains through a flannel bag; the head of the barrel must then be taken out, and the barrel rinsed with a little of the wine. After the head is again put in, add the brandy and fruit. Put the bung in for a little time, but not very tight. It will be necessary to refine the wine with isin-

glass, about three weeks before it is bottled, which should not be in less than a year. One ounce of isinglass, dissolved in half a pint of wine, and stirred into the barrel, will be sufficient.

Before the water is poured on the fruit, it should be boiled with the stalks, and with hops; the latter in the proportion of a quarter of a pound to every thirty gallons of water. Strain the liquor, let it grow cold, and then add it to the fruit.

1252. *Spruce Wine.*—To every gallon of water take a pound and a half of honey, and half a pound of fine starch. Before the starch is mixed with the honey-syrup, it must be reduced to a transparent jelly, by boiling it with part of the water purposely reserved;—a quarter of a pound of essence of spruce must be used to five gallons of water, and when sufficiently stirred and incorporated, pour the wine into the cask. Then add a quarter of a pint of good ale-yeast, shake the cask well, and let it work for three or four days, after which, bung it. It may be bottled in a few days, and in ten days afterwards, will be fit to drink. When this wine is bunged, a quarter of an ounce of isinglass, first dissolved in a little of the warmed liquor, may be stirred in by way of fining it. In cold weather, the quantity of yeast should be increased: in warm weather, very little ferment is requisite.

1253. *American Currant Wine.*—To one gallon of currant juice add two of water; to each gallon of this mixture add three pounds and a quarter of sugar, a gill of brandy, and a quarter of an ounce of powdered alum: put the whole into a clean cask, in March draw off, and add another gill of brandy to each gallon.

1254. *Rich Mead.*—Mix well the whites of six eggs in twelve gallons of water; and to this mixture, when it has boiled half an hour and been well skimmed, add thirty-six pounds of the finest honey, with the rinds of two dozen lemons. Let them boil together some little time, and on the liquor's becoming sufficiently cool, work it with a little ale-yeast. Put it with the lemon peel into a seasoned barrel, which must be filled up as it flows over with some of the reserved liquor; and when the hissing ceases, drive the bung close. After the wine has stood five or six months, bottle it for use. If intended to be kept

several years, put in a pound more honey for every gallon of water.

1255. *Red and White Mead with Raspberries and Currants.*—For every gallon of wine to be made, take one pound and a half of honey, half an ounce of tartar, or Bologna argol, and three-quarters of a pound of fruit. If for white wine, white argol should be used with white currants; if for red wine, red argol with red currants or raspberries. Prepare the honey by mixing it with as much water as will, when added to the juice of the fruit (allowing for diminution by boiling, &c.), make the proposed quantity of wine. This being well boiled and clarified, infuse in it a moderate quantity of rosemary leaves, lavender, and sweet-brier, and when they have remained for two days, strain the liquor, and add it to the expressed juice of the fruit, put in the dissolved argol, stir the whole well together, and leave it to ferment. In two or three days, put it in a seasoned barrel; keep filling it up, as the liquor flows over; and on its ceasing to work, sink in it a muslin bag of Seville orange and lemon peel, with cinnamon, cloves and nutmegs, and closely bung the cask. If kept for six months or more in the wood, and at least nine in bottles, this wine will be excellent, whether red or white. In a similar way may be made all sorts of fruit wines, thus substituting honey for sugar.

1256. *Nectar.*—Take half a pound of raisins of the sun, chopped, one pound of powdered loaf sugar, two lemons, sliced, and the peel of one. Put them into an earthen vessel with two gallons of water, the water having been boiled half an hour; and put them in while the water is boiling. Let the whole stand three or four days, stirring it twice a day; then strain it, and in a fortnight it will be ready for use.

1257. *Syrup of Cloves, Cinnamon, or Mace.*—All these syrups are made exactly on the same plan.—Take two ounces of either cloves, cinnamon, or mace, well pounded, and put it into a pint of boiling water in a small stewpan. Let it boil half an hour, pass the liquor through a hair sieve, dissolve in it a pound and a half of powdered loaf sugar, clear it over the fire, with the white of an egg beaten to a froth, and a little rose or orange-flower water, and let it simmer gently till the syrup is formed and clear. When quite cold, put it in bottles, which must be closely corked.

1258. *Syrup of Ginger.*—Steep an ounce and a half of beaten ginger in a quart of boiling water, closely covered up for twenty-four hours; then, straining off the infusion, make it into a syrup, by adding at least two pounds of fine loaf sugar, dissolved, and boiled up in a hot water bath.

1259. *French Rossolis, perfumed with Flowers.*—Boil two quarts of spring water, to take off the hardness; then take it off the fire, and when it is only lukewarm, throw in a pinch of the most odoriferous flowers, and let them infuse till the liquid is cold, and the fragrance all extracted. Then take away the flowers with a skimmer, strain the liquid, and add to it a pint of clarified syrup, and half a pint of spirits of wine, and a rossolis, or sun-dew, will be produced.

1260. *Bergamot Water.*—Make a pint of syrup; and when cold, press into it half a dozen fine lemons, with, or without, a Seville orange, or two China oranges, adding as much water as may be necessary; then putting in a tea-spoonful of genuine essence of bergamot, run the whole through a lawn sieve, and it is immediately ready for drinking.

1261. *Peach and Apricot Waters.*—Both these waters, as well as those of other fruits, are readily made by mixing two or three table-spoonfuls of the respective jams with a few blanched and pounded bitter almonds, lemon-juice, and cold spring water, with powdered loaf sugar to your taste. On being run through a lawn sieve, these waters are immediately fit to drink.

1262. *Persian and Turkish Sherbet.*—The method pursued by the Persians, Turks, &c., is to extract the fragrant, rich, and acidulated juices of the finest flowers and fruits, and make them, with the addition of sugar, into what we call fruit jellies or lozenges, which are dissolved in the purest spring water, and thus form the agreeable beverage denominated sherbet. For example, they evaporate the purified juice of citrons in a water bath with a slow fire, till it becomes of nearly the consistence of honey, melting, in the mean time, some finely powdered loaf sugar in a silver dish, and continually stirring it with a flat wooden spoon; when the sugar is very dry, they sprinkle over it, a little at a time, the prepared juice of citron; continuing to stir it till the whole has sufficient moisture to form a paste,

which they make into lozenges, and keep in a dry, and rather warm situation; in this way, they prepare all the acid juices, such as barberries, lemons, gooseberries, &c.: with the less acid and more delicately flavored fruits, they proceed differently, only well heating the sugar in a silver dish, adding to it by degrees the fresh juice, and stirring it constantly till a paste is formed. This must not be made into lozenges till perfectly dry, and they must be put into a box lined with paper, and kept in a dry place. They are variously prepared with orange-flowers, roses, &c. The Persians and Turks are said to prepare a favorite sherbet with violet vinegar, pomegranate-juice, and sugar formed into lozenges.

1263. *Hypocras, as made at Paris.*—Put into a quart of the best and strongest red wine half a pound of powdered loaf sugar, half a dram of cinnamon, a pinch of coriander seeds, two white pepper-corns, a little Seville orange peel, a blade of mace, a small quantity of lemon-juice, and four cloves; the spices, &c., being all previously beaten in a mortar. When the whole has infused three or four hours, add a table-spoonful of milk; and filtering the liquid through a flannel bag, it will prove excellent for present or future use.

1264. *Strawberry Sherbet.*—On half a pound of sugar of the best quality, broken into lumps, pour a quart of spring water. Let it stand until nearly dissolved; give it a stir, and boil it for about ten minutes. Take off the scum, and throw into the syrup a pint and a half of sound ripe strawberries, measured without their stalks. Let these simmer gently until they shrink much and begin to break, and keep them well skimmed, or the sherbet will not be clear. Before it is taken from the fire, add the strained juice of a sound fresh lemon, then turn the preparation into a jelly-bag, or let it stand for a quarter of an hour, and then strain it through a muslin folded in four. This latter method is generally quite sufficient to render any liquid not thickened by the *over*-boiled pulp of fruit, quite transparent. When strawberries abound, a quart, or even more, may be used for this preparation; and the proportion of sugar can always be increased or diminished to the taste. To give the sherbet an Oriental character, boil in it the petals of six or eight orange, lemon, or citron blossoms; or orange-flower water may be used.

1265. *Lemonade* (*Italian*).—Two dozen lemons must be pared and pressed; the juice should be poured on the peels, and remain on them all night; in the morning add two pounds of loaf sugar, a quart of good white wine, and three quarts of boiling water. When these ingredients are blended, add a quart of boiling milk. Strain the whole through a jelly-bag till it becomes quite clear.

1266. *Lemonade.*—One of the best methods of making lemonade is to prepare a syrup of sugar and water, over a clear fire, skimming it quite clean; to this add the juice of any number of lemons, according to the quantity you wish to make; also some of the rinds.

1267. *Rich Orangeade.*—Steep the yellow rinds of six China, and two Seville oranges in a quart of boiling water, closely covered up for five or six hours; then make a syrup with a pound of sugar, and three pints of water, mix the infusion and syrup together, press in the juice of a dozen China oranges, and the two Seville oranges from which the rind was taken, stir the whole well together, and run it through a jelly-bag; afterwards, if agreeable, a little orange-flower water, with some capillaire syrup, may be added, should sweetness be wanted. Two lemons may be used, as well as the two Seville oranges; but care should be taken that the flavor of the lemons does not predominate.

1268. *Orgeat Paste.*—This paste, which will keep twelve months, is nearly as soon made into orgeat as the orgeat syrup. The mode of preparing it in Paris, is by well pounding blanched almonds with a little water, to prevent their turning to oil; then adding half the weight of the almonds in pounded sugar, and mixing both together into a paste.

Of this paste, when wanted, mix a small portion, about the size of an egg, in a pint of spring water, and strain it through a napkin. The usual English mode of making orgeat paste is, by pounding in the same manner, half an ounce of bitter, to a pound of sweet, almonds; and boiling a quart of common syrup, till it becomes what is called blow; mixing the almonds with it over the fire, well stirred all the time, to prevent burning, till it becomes a stiff paste; then, on its getting quite cold, putting it in pots, to be used in the same manner as the other

1269. *To cork, and preserve Cider in Bottles.*—Good corks are highly necessary, and if soaked before used in scalding water, they will be more the pliant and serviceable; and by laying the bottles so that the liquor may always keep the cork wet and swelled, will much preserve it.

1270. *Soda Water and Ginger Beer Powders.*—Carbonate of soda and tartaric acid, of each two ounces; fine loaf sugar rolled and sifted, six ounces; pure essence of lemon, twenty-five or thirty drops. To be well mixed in a marble mortar, kept in a bottle closely corked, and *in a very dry place.* When required for use, two tea-spoonfuls to less than a half pint of water, to be mixed in a glass that will hold twice that quantity, and drunk while in a state of effervescence. If half an ounce or one ounce (according as it may be liked more or less hot), of best ground ginger be mixed with the above quantity, it will be "ginger-beer powder."

1271. *Spruce Beer.*—For *white* spruce, pour ten gallons of boiling water upon six pounds of good raw or lump sugar, and four ounces of essence of spruce; ferment with half a pint of good yeast, put into stone bottles, cork and tie them over. For *brown* spruce use treacle instead of sugar.

Essence of spruce is a remedy for colds, rheumatisms, &c., if drunk warm at bed-time.

1272. *An Irish Cordial.*—To every pound of white currants stripped from the stalks and bruised, put the very thin rind of a large fresh lemon, and a quarter of an ounce of ginger, well pounded and sifted. Pour on these one quart of good old whiskey; mix the whole up thoroughly, and let it stand for twenty-four hours in a new well-scalded stone pitcher, or deep pan (*crock*), covered closely from the air. Strain it off; stir in it, until dissolved, a pound and a quarter of pounded sugar, and strain it again and bottle it. This is an Irish receipt, and is given without variation from the original.

1273. *To prevent Beer from growing flat.*—In a cask containing eighteen gallons of beer, becoming vapid, put a pint of ground malt, suspended in a bag, and close the bung perfectly; the beer will be improved during the whole time of drawing it for use.

1274. *To recover sour Beer.*—When beer has become sour, put into the barrel some oyster-shells, calcined to whiteness, or a little fine chalk or whiting. Any of these will correct the acidity, and make the beer brisk and sparkling; but it cannot be kept long after these additions are made.

1275. *Rose Vinegar for Salads or the Toilette.*—To one quarter of a pound of rose-leaves put two quarts of good vinegar; cover it firmly; leave it to infuse till a fine tincture is obtained; then strain it.

1276. *Raspberry Vinegar.*—Pour one quart of vinegar on two pounds of fresh raspberries, and let it stand twenty-four hours. Then strain them through a hair-sieve without breaking the fruit; put the liquor on two pounds more fruit, and, after straining it in the same manner, add to each pint of juice half a pound of loaf sugar; put it in a stone vessel, and let it stand in boiling water until the sugar is dissolved; when cold, take off the scum, and bottle it.

1277. *Cheap and easy method of Brewing.*—One bushel of malt and three-quarters of a pound of hops will, on an average, brew twenty gallons of good beer.

For this quantity of malt, boil twenty-four gallons of water; and, having dashed it in the copper with cold water to stop the boiling, steep the malt (properly covered up) for three hours; then tie up the hops in a hair-cloth, and boil malt, hops, and wort, altogether, for three-quarters of an hour, which will reduce it to about twenty gallons. Strain it off, and set it to work when lukewarm.

In large brewings, this process perhaps would not answer, but in small ones, where the waste is not so great, and where the malt can be boiled, the essence is sure to be extracted.

1278. *To make excellent and wholesome Table Beer.*—To eight quarts of boiling water put a pound of treacle, a quarter of an ounce of ginger, and two bay leaves; let this boil for a quarter of an hour, then cool, and work it with yeast, the same as other beer.

1279. *How the Chinese make Tea.*—The art of making tea consists in pouring the water on and off immediately, so as to get the flavor.

1280. *Tea, economically.*—Young Hyson is supposed to be a more profitable tea than Hyson; but though the *quantity* to a pound is greater, it has not so much *strength*. In point of economy, therefore, there is not much difference between them. Hyson tea and Souchong mixed together, half and half, is a pleasant beverage, and is more healthy than green tea alone. Be sure that water boils before it is poured upon tea. A tea-spoonful to each person, and one extra thrown in, is a good rule. Steep a few minutes.

1281. *Turkish method of making Coffee.*—The coffee must be slowly roasted, not burnt, and brought only to an amber brown: it must be roasted day by day. The flavor dissipates in a few hours; it must be reduced by pounding to an impalpable powder. In making it, two opposite and, apparently, incompatible ends are to be secured—strength and flavor. To obtain the first, it must be boiled; by boiling, the second is lost. The difficulty is surmounted by a double process—one thorough cooking, one slight one; by the first a strong infusion is obtained; by the second, that infusion is flavored. Thus a large pot with coffee-lees stands simmering by the fire; this is the sherbet. When a cup is wanted, the pounded coffee is put in the little tin or copper pan, and placed on the embers; it fumes for a moment, then the sherbet is poured on; in a few seconds the froth (caïmah) rises; presently an indication that it is about to boil is made manifest, when the coffee is instantly taken from the fire, carried into the apartment, turned into the cup, and drank.

1282. *Cheap and valuable substitute for Coffee.*—The flour of rye, and yellow potatoes, are found an excellent substitute for coffee. Boil, peel, and mash the potatoes, and then mix with the meal into a cake, which is to be dried in an oven, and afterwards reduced to a powder, which will make a beverage very similar to coffee in its taste, as well as in other properties, and not in the least detrimental to health.

1283. *Substitute for Cream.*—If you have not cream for coffee, it is a very great improvement to boil your milk, and use it while hot.

1284. *Cocoa* is the foundation of chocolate; it may be

pounded, and either boiled as milk, or boiling water may be poured on it. It is very digestible, and of a fattening nature.

1285. *Racahout des Arabes ; a pleasant beverage for Invalids.*—Mix thoroughly one pound of ground rice ; one pound of arrow-root ; half pound of fine chocolate. Put the mixture into a jar for use. When it is wanted, make a tablespoonful of the Racahout into a paste with cold water or milk ; then stir it into half a pint of boiling milk, and let it boil up for a minute or two ; add sugar, if agreeable, and drink it as you would chocolate.

1286. *How to judge the Properties of Nutmegs.*—The largest, heaviest, and most unctuous of nutmegs are to be chosen, such as are the shape of an olive, and of the most fragrant smell.

1287. *To keep Grapes.*—Gather the grapes in the afternoon of a dry day, before they are perfectly ripe. Have ready a clean dry barrel and wheat bran. Proceed then with alternate layers of bran and grapes, till the barrel is full, taking care that the grapes do not touch each other, and to let the last layer be of bran ; then close the barrel, so that the air may not be able to penetrate, which is an essential point. Grapes, thus packed, will keep nine or even twelve months. To restore them to their freshness, cut the end of the stalk of each bunch of grapes, and put that of white grapes into white wine, and that of the black grapes into red wine, as you would put flowers into water, to revive or keep them fresh.

1288. *To keep Oranges and Lemons.*—Take small sand and make it very dry ; after it is cold, put a quantity of it into a clean vessel ; then take your oranges, and set a laying of them in the same, the stalk-end downwards, so that they do not touch each other, and strew in some of the sand, as much as will cover them two inches deep ; then set your vessel in a cold place, and you will find your fruit in high preservation at the end of several months.

1289. *Another Method.*—Freeze the oranges, and keep them in an ice-house. When to be used, put them into a vessel of cold water till they are thawed. By this means they may be had in perfection at any season of the year.

1290. *Keeping Apples.*—Apples should be placed on a dry floor three weeks before they are packed away in barrels. They should be kept in a cool place; if inclosed in a water-tight cask, they may be kept all winter in a loft or garret without further care, and will come out sound and fresh in the spring.

1291. *To keep Onions.*—Onions should be kept very dry, and never carried into the cellar except in severe weather, when there is danger of their freezing. By no means let them be in the cellar after March; they will sprout and spoil.

1292. *A good way of cooking onions.*—It is a good plan to boil onions in milk and water; it diminishes the strong taste of that vegetable. It is an excellent way of serving up onions, to chop them after they are boiled, and put them in a stewpan, with a little milk, butter, salt, and pepper, and let them stew about fifteen minutes. This gives them a fine flavor, and they can be served up very hot.

1293. *To keep Parsnips.*—Parsnips should be kept down cellar, covered up in sand, entirely excluded from the air. They are good only in the Spring.

1294. *To keep Cabbages.*—Cabbages put into a hole in the ground will keep well during the winter, and be hard, fresh, and sweet in the Spring. Many farmers keep potatoes in the same way.

1295. *To keep Potatoes.*—The cellar is the best place for them, because they are injured by wilting; but sprout them carefully, if you want to keep them. They never sprout but three times; therefore, after you have sprouted them three times, they will trouble you no more.

Note.—Boiled potatoes are said to cleanse the hands as well as common soap; they prevent *chaps* in the winter season, and keep the skin soft and healthy.

1296. *Boiling Potatoes.*—The following method of dressing potatoes will be found of great use at the season of the year, when skins are tough and potatoes are watery. Score the skin of the potato with a knife, lengthwise and across, quite around, and then boil the potato in plenty of water and salt, with the

skin on. The skin readily cracks when it is scored, and lets out the moisture, which otherwise renders the potato soapy and wet. The improvement to bad potatoes by this method of boiling them is very great, and all who have tried it find a great advantage in it, now that good potatoes are very difficult to be obtained.

1297. *To keep Celery.*—Celery should be kept in the cellar the roots covered with tan, to keep them moist.

1298. *To keep Lettuce.*—If the tops of lettuce be cut off when it is becoming too old for use, it will grow up again fresh and tender, and may thus be kept good through the summer.

1299. *Good Squashes.*—Green squashes that are turning yellow, and striped squashes, are more uniformly sweet and mealy than any other kind.

1300. *To dry Pumpkin.*—Cut it round horizontally in tolerably thin slices, peel them and hang them on a line in a warm room. When perfectly dry, put them away for use. When you wish to use it, put it to soak over night; next day pour off the water, put on fresh water, stew and use it as usual, &c.

Another and, as some think, a much better way, is to boil and sift the pumpkin, then spread it out thin in tin plates, and dry hard in a warm oven. It will keep good all the year round, and a little piece boiled up in milk will make a batch of pies.

1301. *To pickle large Mushrooms.*—Pick them carefully, and take out the stalks; put them into a jar, and pour on them boiling spiced vinegar, with a little salt in it.

1302. *To preserve Green Currants.*—Currants may be kept fresh for a year or more, if they are gathered when green, separated from the stems, put into dry, clean junk bottles, and corked very carefully, so as to exclude the air. They should be kept in a cool place in the cellar.

1303. *Walnut Ketchup.*—Take half a bushel of green walnuts, before the shell is formed, and grind them in a crab mill, or beat them in a marble mortar; then squeeze out the juices

through a coarse cloth, and wring the cloth well to get all the juice out, and to every gallon of juice put a quart of red wine, a quarter of a pound of anchovies, the same of bay salt, one ounce of allspice, two of long or black pepper, half an ounce of cloves and mace, a little ginger and horse-radish, cut in slices; boil all together till reduced to half the quantity; pour into a pan; when it is cold bottle it, cork it tight, and it will be fit to use in three months. If you have any pickle left in the jar after your walnuts are used, to every gallon of pickle put in two heads of garlic, a quart of red wine, an ounce each of cloves and mace, long, black, and Jamaica pepper, and boil them all together, till it is reduced to half the quantity, pour it into a pan, and the next day bottle it for use, and cork it tight.

1304. *To discover if Bread is adulterated with Alum.*—Make a solution of lime in aquafortis, and put a little of this solution into water, in which you have steeped the bread suspected to contain alum. If such should be the case, the acid, which was combined with the alum, will form a precipitate or chalky concretion at the bottom of the vessel.

1305. *To preserve Biscuit from Putrefaction.*—To preserve biscuit a long time sweet and good, no other art is necessary than stowing it, well baked, in casks exactly caulked, and carefully lined with tin, so as to exclude the air; at the same time the biscuit must be so placed as to leave as little vacant room as possible in the cask; and when the same is opened through necessity, it must be speedily closed again with great care.

1306. *A good Yeast.*—Put into one gallon of water a double-handful of hops;—boil them fifteen or twenty minutes, then strain off the water while it is scalding hot; stir in wheat flour or meal till it becomes a thick batter, so that it will hardly pour;—let it stand till it becomes about blood-warm, then add a pint of good lively yeast, and stir it well; and then let it stand in a place where it will be kept at a temperature of about seventy degrees Fahrenheit, till it becomes perfectly light, whether more or less time is required; and then it is fit for use;—or if it is desired to keep a portion of it, let it stand several hours and become cool; and then put it into a clean jug and cork it tight, and place it in the cellar, where it will keep

cool; and it may be preserved good, ten or twelve days, and even longer.

1307. *The Dairy.*—Dairymen will find a great advantage in cheese making, by putting their milk, which is to stand over night, into small air-tight vessels. They will also find it an advantage, when it thunders, to suspend the vessels by a cord or chain, as the jarring of the shocks, which sour the milk, will, in a great measure, be prevented. We may prevent the commencement of sourness, which takes place in milk standing in large quantities, by a wooden follower being fitted to the vat, and pressed on the milk. If any one doubt the utility of this, let him try the experiment for himself. Cover the bottom of your cheese-vat to the depth of half an inch with milk, and let it stand through the night, and then try to make a breakfast of it in the morning. You could relish tallow as well, or a piece of bread and butter that had lain in the sun an hour. Neither milk, butter, nor cheese will do to stand in the light of the sun, though it be reflected, as it will produce rancidity.

1308. *Butter.*—Keep your pails, churn, and pans sweet. In winter warm the pans and churns with hot water, in summer cool them with cold. Keep your milk in summer where it is cool and airy, in winter where it is warm. In warm weather skim your milk as soon as it is thick; in colder weather skim as soon as there is a good thick cream, and be careful not to let it remain too long, as it will acquire a bad taste. Churn as often as you have cream enough, never less than once a week. If the cream is of the right temperature when commenced, it will not froth, and if it does, put in a little salt. Use no salt but the best ground salt; work out all the butter-milk with a ladle in summer, in winter use clean hands. If you wish to keep it some time, put it down in a jar or firkin, or pickle in layers, as clean and free from butter-milk as it is possible, leaving a space for pickle over it, in the following proportions. Half a pail of water, one quart of fine salt, two ounces of loaf-sugar, one ounce of saltpetre, well boiled and skimmed. When cold, cover with this, and it will keep good and sweet, the year round.

1309. *Cream.*—The quantity of cream on milk may be greatly increased by the following process: Have two pans

ready in boiling hot water, and when the new milk is brought in, put it into one of these hot pans and cover it with the other. The quality as well as the thickness of the cream is improved.

1310. *Method of curing bad Tub Butter.*—A quantity of tub butter was brought to market in the West Indies, which, on opening, was found to be very bad, and almost stinking. A native of Pennsylvania undertook to cure it, which he did, in the following manner:—

He started the tubs of butter in a large quantity of hot water, which soon melted the butter; he then skimmed it off as clean as possible, and worked it over again in a churn, and with the addition of salt and fine sugar, the butter was sweet and good.

1311. *Method of taking the Rankness and disagreeable Taste from Irish Salt Butter*—The quantity proposed to be made use of, either for toasts or melting, must be put into a bowl filled with boiling water, and when the butter is melted, skim it quite off; by this method it is so separated from any gross particles, that it may require a small addition of salt, which may be put into the cold water that is made use of in melting butter for sauce; and though the butter is oiled by hot water, it becomes a fine cream in the boiling for sauce.

1312. *To remove the Taste of Turnips from Milk or Butter.*—The taste of the turnip is easily taken off milk and butter, by dissolving a little nitre in spring water, which being kept in a bottle, and a small tea-cupful put into eight gallons of milk, when warm from the cow, entirely removes any taste or flavor of the turnip.

1313. *To make Salt Butter fresh.*—Put four pounds of salt butter into a churn, with four quarts of new milk, and a small portion of arnotto. Churn them together, and, in about an hour, take out the butter, and treat it exactly as fresh butter, by washing it in water, and adding the customary quantity of salt.

This is a singular experiment. The butter gains about three ounces in each pound, and is in every particular equal to fresh butter. It would be greatly improved by the addition of two

or three ounces of fine sugar, in powder. A common earthen churn answers the same purpose as a wooden one, and may be purchased at any pot shop.

1314. *Method of making Stilton Cheese.*—Take the night's cream, and put it to the morning's new milk, with the rennet; when the curd is come it is not to be broken, as is done with other cheeses, but take it out with a soil dish all together, and place it on a sieve to drain gradually, and, as it drains, keep gradually pressing it, till it becomes firm and dry; then place it in a wooden hoop; afterwards to be kept dry on boards, turned frequently, with cloth-binders round it, which are to be tightened as occasion requires.

In some dairies the cheeses, after being taken out of the wooden hoop, are bound tight round with a cloth, which cloth is changed every day until the cheese becomes firm enough to support itself; after the cloth is taken away, they are rubbed every day all over, for two or three months, with a brush; and if the weather is damp or moist, twice a day; and even before the cloth is taken off, the top and bottom are well rubbed every day.

1315. *Coloring for Cheese.*—The coloring for cheese is, or at at least should be, Spanish arnotto; but as soon as coloring became general in this country, a color of an adulterated kind was exposed for sale in almost every shop; the weight of a guinea and a half of real Spanish arnotto is sufficient for a cheese of fifty pounds' weight. If a considerable part of the cream of the night's milk be taken for butter, more coloring will be requisite. The leaner the cheese is, the more coloring it requires. The manner of using arnotto is to tie up, in a linen rag, the quantity deemed sufficient, and put it into half a pint of warm water over night. This infusion is put into the tub of milk, in the morning, with the rennet infusion; dipping the rag into the milk, and rubbing it against the palm of the hand as long as any color runs out.

1316. *To make Cement for Bottles or Preserve Jars.*—Take one-third bees'-wax and two-thirds rosin, according to the quantity of cement required. Pound the rosin fine, and put it with the wax to melt in any old vessel fit for the purpose. When it is melted, take it off the fire, and add powdered brick-dust

till it is as thick as melted sealing-wax. Then dip the bottle necks into the cement, and in a few minutes the mixture will be dry.

1317. *Blue Wash for Walls.*—Take one pound of lump blue vitriol; pound it in a stone mortar as fine as possible; dissolve it in a quart or two of hot water. Slake about a quarter of a peck, or perhaps a little more of lime, and when *cold* pour in the blue water by degrees, and make it whatever shade you desire.

The lime must be slaked and the vitriol dissolved in earthen or stone ware, and the whole mixture stirred with a metal spoon. If wood is used for any of the above purposes, the color will be changed. A new brush should also be used to put it on the walls, and they must first have a coat or two of whitewash, to destroy all smoke and other impurities.

1318. *Yellow Wash for Walls.*—One quarter of a pound of chrome yellow, one quarter of a pound of gum senegal, two pounds of whiting.

EASY AND CHEAP MODE OF COLORING CLOTHING, &c.

1319. "*Blue Composition,*" a compound of vitriol and indigo, is usually kept by hatters and apothecaries. It colors a good and durable blue. An ounce vial, that may be bought for a trifle, will color a large number of articles. It is an economical plan to use it for old silk linings, ribbons, &c. The original color should be boiled out, and the material thoroughly rinsed in soft water, so that no soap may remain in it; for soap ruins the dye. Twelve or sixteen drops of the blue composition, poured into a quart bowl full of warm soft water, stirred, (and strained, if any settlings are perceptible,) will color a great many articles. If you wish a deep blue, pour in more of the compound. Cotton must not be colored; the vitriol destroys it; if the material you wish to color has cotton threads in it, it will be ruined. After the things are thoroughly dried, they should be washed in cool suds, and dried again; this prevents any bad effects from the vitriol; if shut up from the air, without being washed, there is danger of the texture being destroyed.

1320. *How to color Green.*—If you wish to color green, have your cloth free as possible from the old color, clean and rinsed, and, in the first place, color it a deep yellow. Fustic boiled in soft water makes the strongest and brightest yellow dye; but saffron, barberry bush, peach leaves, or onion skins, will answer pretty well. Next take a bowl full of strong yellow dye, and pour in a great spoonful or more of the blue composition. Stir it up well with a clean stick, and dip the articles you have already colored yellow into it, and they will take a lively grass-green. This is a good plan for old bombazet curtains, dessert cloths, old flannel for desk coverings, &c.

1321. *Slate Color.*—Tea-grounds boiled in iron, and set with copperas, make a very good slate color.

1322. *Purple Slate Color.*—The purple paper, which comes on loaf sugar, boiled in cider, or vinegar, with a small bit of alum, makes a fine purple slate color. Done in iron.

White maple bark makes a good light-brown slate color. This should be boiled in water, set with alum. The color is reckoned better when boiled in brass, instead of iron.

The purple slate and the brown slate are suitable colors for stockings; and it is an economical plan, after they have been mended and cut down, so that they will no longer look decent, to color old stockings, and make them up for children.

1323. *To make Nankin Color.*—A pailful of lye, with a piece of copperas half as big as a hen's egg boiled in it, will color a fine nankin color, which will never wash out. This is very useful for the linings of bed-quilts, comforters, &c. Old faded gowns, colored in this way, may be made into good petticoats. Cheap cotton cloth may be colored to advantage for petticoats, and pelisses for little girls.

1324. *Nankin Color, another way.*—The common *birch-bark* makes a very beautiful nankin dye. Cover the bark with water, and boil it thoroughly in a brass or tin kettle. Bark stripped from the trees in autumn is best. Set the color with alum. A piece as large as a hen's egg is sufficient for two pailsful of dye. Dip the articles, wet thoroughly in clean water, into the alum water, then into the dye.

1325. *To make Straw-color and Yellow.*—Saffron, steeped in earthen and strained, colors a fine straw color. It makes a delicate or deep shade, according to the strength of the tea. The dry outside skins of onions, steeped in scalding water and strained, color a yellow very much like the "bird of paradise" color. Peach leaves, or bark scraped from the barberry bush, color a common bright yellow. In all these cases, a little bit of alum does no harm, and may help to fix the color. Ribbons, gauze handkerchiefs, &c., are colored well in this way, especially if they be stiffened by a bit of gum-arabic, dropped in while the stuff is steeping.

1326. *To make Rose-color.*—Balm blossoms, steeped in water, color a pretty rose-color. This answers very well for the linings of children's bonnets, for ribbons, &c. It fades in the course of one season, but it is very little trouble to re-color with it. It merely requires to be steeped and strained. Perhaps a small piece of alum might serve to set the color, in some degree. In earthen or tin.

1327. *To color Black.*—Logwood and cider, boiled together, in iron—add water for the evaporation—makes a good and durable black. Rusty nails, or any bits of rusty iron, boiled in vinegar, with a small piece of copperas, will also dye black; so will ink-powder, if boiled with vinegar. In all cases, black must be set with copperas.

1328. *General Rules for Coloring.*—The materials should be perfectly clean; soap should be rinsed out in soft water; the article should be entirely wetted, or it will spot; light colors should be steeped in brass, tin, or earthen; and if set at all, should be set with alum. Dark colors should be boiled in iron, and set with copperas. Too much copperas rots the thread.

1329. *To Wash Carpets.*—Put the carpets down on a perfectly clean floor; wash them first with warm and weak soapsuds, wringing the wash-cloth almost dry; rinse them with clear water. Open the windows, that they may dry quickly.

It is obvious that the above directions are only applicable to the lighter sorts of carpets, Scotch, Kidderminster, and Venetian. If it be desired to cleanse a carpet which has an under

texture of thread, as Brussels, tapestry, or velvet, the carpet having been well beaten or shaken, and washed, should be spread out, and scrubbed with a scrubbing brush and ox-gall. A pint of gall and three gallons of water will clean a large carpet.

After the use of the gall, the carpet must be thoroughly rinsed, and dried in the open air.

1330. *To Wash Clothes, on a small scale.*—For a wash for three persons put three-quarters of an ounce of soda in soap and water over the fire. Wash the clothes first in soap and water; rub soap on the soiled or greasy places, and throw them in the mixture. Let them boil an hour; rinse them in clear, cold water; rinse them again in water with a little bluing in it. If the clothes are much soiled, put them to soak over night.

1331. *Washing of Woollen Articles; an excellent way.*—It is a common complaint that woollen articles thicken, shrink, and become discolored in washing. The complaint applies both to the lighter articles of knitted wool, such as shawls, &c., and to thicker and heavier materials—table baizes, carpets, and men's woollen garments. The difficulty in either case may be obviated by strict attention to the method about to be explained. To clear the way, it may be well first to point out some things which *never* ought to be done, but which frequently, perhaps generally, are done:—

1. Woollen articles are never to be washed in hard water, nor in water softened by soda, potash, or anything of that kind. Soap even should never touch them.

2. They are never to be rubbed at all.

3. They are never to be put in lukewarm water for washing, nor in cold water for rinsing.

4. They are never to remain lying still in the water a single minute.

5. They are never to be wrung.

6. When taken out of the water, they must not be laid down at all, before the process of drying is commenced, nor at any time afterwards until they are perfectly dry.

These things are to be avoided:—Now what is to be done?

1. Let the things to be washed be first well brushed and shaken, to get rid of the dust.

2. Before the woollen things are wetted at all, take care to have everything that will be required, ready and within reach.

3. If several things are to be done, let each be begun and finished separately. This makes no difference in expense or trouble. A smaller vessel and smaller quantity of lather will suffice, and the stuff in which one article has been washed, would do no good, but harm, to others; it is, in fact, good for nothing.

4. Use only fresh rain water, or very clear river water; rain is preferable.

5. With a piece of sponge or old flannel, rub up a very strong lather of either soft soap or best yellow soap. For very large, greasy things, the lather may be made of ox-gall, half a pint to six quarts of water, whisked up with a handful of birch twigs (like that old-fashioned thing, a rod). In either case, the lather may be prepared with a small quantity of water, and the remainder added, boiling hot, the moment before using it. The whole should be as hot as the hand can bear it; the hotter the better. If the articles are very dirty, two lathers will be required in succession; and unless a second person is at hand, to rub up the second while the first is being used, both had better be prepared in separate vessels before the wools are wetted, leaving only the boiling water to be added.

6. Take the article to be washed, and without leaving hold of it, keep on dipping and raising, dipping and raising, for two or three minutes. By that time the lather will be absorbed by the wool, and the liquor will resemble slimy suds.

7. Squeeze the article as dry as may be, without wringing it.

8. The second lather having been brought to the same heat as the first, proceed in the same manner, dipping and raising. N. B.—If the article was very little soiled, and after the first washing appears quite clear and clean, the second washing may be in hot water without soap. Whether lather or water only, a blue-bag may be slightly drawn through before the second washing. When gall has been used, a third washing in hot water only, will be required to take off the smell.

9. Having again squeezed the article as dry as may be, for the lighter things, such as shawls, &c., spread it on a coarse dry cloth, pulling it out to its proper shape; lay over it another coarse dry cloth, roll the whole up tightly, and let it remain half an hour. This rule does not apply to large, heavy things; they must be hung out at once.

1332. *To make Soft Soap.*—Bore some holes in your lye-barrel; put some straw in the bottom; lay some unslaked lime on it, and fill your barrel with good hard-wood ashes; wet it, and pound it down as you put it in. When full, make a basin in the ashes and pour in water; keep filling it as it sinks in the ashes. In the course of a few hours the lye will begin to run. When you have a sufficient quantity to begin with, put your grease in a large iron pot, let it heat, pour in the lye, let it boil, &c. Three pounds of clean grease are allowed for two gallons of soap.

1333.—*Of Fish as Food.*—As food, fish is easier of digestion than meats are, with the exception of salmon; this kind of fish is extremely hearty food, and should be given sparingly to children, and used cautiously by those who have weak stomachs, or who take little exercise.

The small trout, found in rivers, are the most delicate and suitable for invalids; lake fish are also excellent, and any kind of fresh-water fish, if cooked immediately after being caught, are always healthful.

But the ocean is the chief dependence for the fish-market, and there is little danger (if we except salmon and lobsters) that its kind of aliment will, in our country, be eaten to excess. It would be better for the health of those who do not labor, if they would use more fish and less flesh for food. But then fish cannot be rendered so palatable, because it does not admit the variety of cooking and flavors that other animal food does.

Fish is much less nutritious than flesh. The white kinds of fish, cod, haddock, flounders, white fish, &c., are the least nutritious; the oily kinds, salmon, eels, herrings, &c., are more difficult to digest.

Shell fish have long held a high rank as restorative food; but a well-dressed chop or steak is much better to recruit the strength and spirits.

Cod, *whiting*, and *haddock*, are better for being a little salted, and kept one day before cooking.

1334.—*Of Beef as Food.*—Ox beef is considered the best; heifer beef is excellent where well fed, and is most suitable for small families. If you want the best, choose that which has a fine smooth grain—the lean of a bright red; the fat white or nearly so.

The best roasting-piece is the sirloin; then the first three ribs—if kept till they are quite tender, and boned, they are nearly equal to the sirloin, and better for a family dinner.

The round is used for *alamode* beef, and is the best piece for corning.

The best beef steak is cut from the inner part of the sirloin. Good steak may be cut from the ribs.

If you wish to practise economy, buy the chuck, or piece between the shoulder and the neck; it makes a good roast or steak, and is excellent for stewing or baking. The thick part of the flank is also a profitable piece; good to bake or boil, or even roast.

The leg and shin of beef make the best soup—the heart is profitable meat, and good broiled or roasted. The leg rand is used for mince pies—it needs to be boiled till it is very tender. The tongue, when fresh, is a rich part for mince pies. If eaten by itself, it should be pickled and smoked.

1335.—*Of Pork as Food.*—Pork, that is fed from the dairy, and fattened on corn, is the best—potatoes do very well for part of the feeding. But pork fattened from the still-house is all but poisonous; it should never be eaten by those who wish to preserve their health.

The offals, &c., with which pork in the vicinity of a city is fattened, make it unsavory and unwholesome. Such stuff should be used for manure, and never given as food to animals, whose flesh is to be eaten by man.

When pork is good, the flesh looks very white and smooth, and the fat white and fine. Hogs two years old make the best—older than that, their flesh is apt to be rank. Measly pork is very unwholesome, and never should be eaten. It may be known, as the fat is filled with small kernels.

When the rind is thick and tough, and cannot easily be impressed with the finger, the pork is old, and will require more cooking.

If pork is not cooked enough, it is disagreeable and almost indigestible; it should never be eaten unless it is thoroughly done.

The fat parts of pork are not very healthy food. Those who labor hard may feel no inconvenience from this diet; but children should never eat it; nor is it healthy for the delicate and sedentary. Fat pork seems more proper as material for frying

fish and other meats, and as a garnish, than to be cooked and eaten by itself. It is best and least apt to prove injurious during the cold weather.

1336. *Of Mutton.*—Mutton is best from August till January. It is nutritious, and often agrees better than any other meat with weak stomachs. To have it tender, it must be kept as long as possible without injury. Be sure and cook it till it is *done;* the gravy that runs when the meat is cut, should *never show the least tinge of blood.*

1337. *Of using Gravies.*—Make it a general rule never to pour gravy over any thing that is roasted; by so doing, the dredging, &c., is washed off, and it eats insipid.

SOME HINTS ON DIET, EXERCISE, AND ECONOMY.

1338. *Meat for Children.*—Lamb, veal, and fowls are delicate and healthy diet for the young and sedentary; and for all who find fat meats and those of coarse fibre do not agree with them.

1339. *Economicals of Cooking Meats.*—The most economical way of cooking meat is to *boil* it, if the liquid be used for soup or broth, as it always ought to be.

Baking is one of the cheapest ways of dressing a dinner in small families, and several kinds of meat are excellent, done in this way. Legs and loins of pork, legs of mutton, and fillets of veal will bake to much advantage; especially if they be fat. Never bake a lean, thin piece; it will all shrivel away. Such pieces should always be boiled or made into soup. Pigs, geese, and the buttock of beef are all excellent baked. Meat always loses in weight by being cooked.—In roasting, the loss is the greatest. It also costs more in fuel to roast than to boil—still there are many pieces of meat which seem made for roasting; and it would be almost wrong to cook them in any other way. Those who cannot afford to roast their meat, should not purchase the sirloin of beef. Stewing meat is an excellent and economical mode of cookery.

1340. *Butter as Diet.*—Butter, when new and sweet, is nutritious, and, in our climate, generally healthy; during the

winter, when made very salt, it is not a good article of diet for some people.

1341. *Condiments.*—Pepper, ginger, and most of the condiments, are best during summer; they are productions of hot climates, which shows them to be most appropriate for the hot season. On the other hand, fat beef, bacon, and those kinds of food we denominate "hearty," should be most freely used during cold weather.

1342. *Eat Slowly.*—Eat slowly. One of the most usual causes of dyspepsia among our business men, arises from the haste in which they swallow their food without sufficiently chewing it, and then hurry away to their active pursuits. In England very little business is transacted after dinner. There ought to be, at least, one hour of quiet after a full meal, from those pursuits which tax the brain, as well as those which exercise the muscles.

1343. *Of Breakfast.*—Persons of a delicate constitution should never exercise much before breakfast.

If exposure of any kind is to be incurred in the morning, breakfast should always be taken previously. The system is more susceptible of infection and of the influence of cold, miasma, &c., in the morning before eating, than at any other time.

Those who walk early will find great benefit from taking a cracker or some little nourishment before going out.

Never go into a room of a morning, where a person is sick with a fever, before you have taken nourishment of some kind —a cup of coffee, at least.

In setting out early to travel, a light breakfast before starting should always be taken; it is a great protection against cold, fatigue and exhaustion.

In boarding schools for the young and growing, early breakfast is an indispensable condition to health. Children should not be kept without food in the morning till they are faint and weary.

1344. *Of Supper.*—Never eat a hearty supper just before retiring to rest.

Food should never be eaten when it is hot—bread is very unhealthy, eaten in this way.

1345. *Of Dinner.*—It is injurious to eat when greatly heated or fatigued. It would very much conduce to the health of laboring men, if they could rest fifteen or twenty minutes before dinner.

The diet should always be more spare, with a larger proportion of vegetables and ripe fruits, during summer. Fruits are most wholesome in their appropriate season. The skins, stones, and seeds, are indigestible.

Rich soups are injurious to the dyspeptic. Much liquid food is rarely beneficial for adults ; but a small quantity of plain, nourishing soup is an economical and healthy beginning of a family dinner.

Meats should always be sufficiently cooked. It is a savage custom to eat meat in a half-raw-half-roasted state, and only a very strong stomach can digest it.

Rich gravies should be avoided, especially in the summer season.

1346.—*Of Drinks.*—Most people drink too much, because they drink too fast. A wine-glass of water, sipped slowly, will quench the thirst as effectually as a pint swallowed at a draught. When too much is taken at meals, especially at dinner, it hinders digestion. Better drink little during the meal, and then, if thirsty an hour or two afterwards, more. The practice of taking a cup of tea or coffee soon after dinner is a good one, if the beverage be not drank too strong or too hot.

Dyspeptic people should be careful to take but a small quantity of drink. Children require more, in proportion to their food, than adults. But it is very injurious to them to allow a habit of continual drinking as you find in some children. It greatly weakens the stomach, and renders them irritable and peevish.

The morning meal requires to be lighter and of a more fluid nature than any other. Children should always, if possible to be obtained, take milk—as a substitute, during the winter, good gruel with bread, or water, sweetened with molasses, is healthy. Never give children tea, coffee, or chocolate with their meals.

Coffee affords very little nourishment, and is apt, if drank strong, to occasion tremors of the nerves. It is very bad for bilious constitutions. The calm, phlegmatic temperament can

bear it. With a good supply of cream and sugar, drank in moderation, by those who exercise much and take considerable solid food, it may be used without much danger.

Strong green tea relaxes the tone of the stomach, and excites the nervous system. Persons of delicate constitution are almost sure to be injured by it. Black tea is much less deleterious. If used with milk and sugar, it may be considered healthy for most people.

Chocolate, when it agrees with the constitution, is very nutritious and healthy. But it seldom can be used steadily except by aged persons who are very active. It agrees best with persons of phlegmatic temperament; and is more healthy in the winter season than during warm weather.

No kind of beverage should be taken hot—it injures the teeth and impairs digestion.

1347. *A few Rules for Health.*—Rise early. Eat simple food. Take plenty of exercise. Never fear a little fatigue. Let not children be dressed in tight clothes; it is necessary their limbs and muscles should have full play, if you wish for either health or beauty. Wash very often, and rub the skin thoroughly with a coarse towel.

Wash the eyes in cold water every morning. Do not read or sew at twilight, or by too dazzling a light. If far-sighted, read with rather less light, and with the book somewhat nearer to the eye, than you desire. If near-sighted, read with a book as far off as possible. Both these imperfections may be diminished in this way.

Clean teeth in pure water two or three times a day; but, above all, be sure to have them clean before you go to bed.

Have your bed-chamber well aired; and have fresh bed linen every week. Never have the wind blowing directly upon you from open windows during the night. It is *not* healthy to sleep in heated rooms.

Wear shoes that are large enough. It not only produces corns, but makes the feet misshapen to cramp them.

Avoid the necessity of a physician, if you can, by careful attention to your diet. Eat what best agrees with your system, and resolutely abstain from what hurts you, however well you may like it. A few days' abstinence, and cold water for a beverage, with cold or warm bathing, as the case may require, have driven off many an approaching disease.

If you find yourself really ill, send for a good physician. Have nothing to do with quacks; and do not tamper with quack medicines. You do not know what they are; and what security have you that they know what they are?

1348. *A few Remedies for Sickness.*—The *ague* may be rendered milder by the timely use of an emetic, given one hour before the fit is expected to return. For this purpose, one scruple of ipecacuanha may be given in an ounce of water. After each return of vomiting, give half a pint of tepid chamomile tea, which may be repeated three or four times, but not oftener. When the disease has continued for some days, and the force of the fever is weakened by emetics, give to an adult the following preparation of bark:—

Take of Peruvian bark, in fine powder, one ounce; port wine, one quart; mix them, and let them stand together for twelve hours. Shake the bottle, and give four large spoonsful immediately after the hot stage of the disorder, repeating it every second hour till the whole be taken; unless the coming on of the next ague-fit should require its suspension.

1349. *Hysteric Affections.*—So numerous and various are the symptoms said to belong to this disease, that it becomes difficult to mark its peculiar character. It is frequently described by the patient, as a round body moving in the bowels, ascending to the stomach, and from thence affecting the throat with a sense of stricture, threatening suffocation. The patient also complains of palpitation, a costive habit, cold feet and legs, &c. To counteract the force of these attacks, the bowels should be kept open by the following aperient mixture:—

Take of infusion of senna, one ounce and a half; tincture of senna, tincture of cardamoms, of each half an ounce. Three large spoonsful to be taken occasionally.

The feet and legs should be kept warm, the head cool; the diet should consist chiefly of animal food of easy digestion, as beef or mutton; avoiding vegetables and malt liquor, indeed everything that has a tendency to generate flatulency. As a beverage, weak brandy and water, toast and water, tea or coffee, whichever suits the palate of the patient, may be freely used. Much depends on the cause—as that varies, so must the treatment. *A dash of cold water on the face will frequently put an end to the paroxysm.*

1350. *Mumps* are sometimes epidemic and manifestly contagious; they come on with shivering and a sense of coldness, followed by an increased heat, and a considerable enlargement of the glands on each side the neck, below the ear, near to the angle of the jaw-bone. This swelling continues to increase until the fourth or fifth day, when it gradually subsides; but before it entirely disappears, it often happens that other tumors take place in the breasts of women, to which the male sex are also subject in different parts of the body.

They are more or less painful, but commonly run their course without any alarming symptoms, and therefore scarcely require any remedies. This entirely depends on good nursing; care should be taken to avoid exposure to cold air, and no application should be used except a slight additional covering. Fomentations, liniments, blisters, and whatever may have a tendency to check the regular process of this disease, may occasion a sudden determination to the brain, and prove fatal to the patient.

A spare diet, gentle laxative medicines, and a free use of weak diluting liquors, are the best means to be employed; these, with a well-regulated temperature, will generally guard off the secondary tumors. But when the disease has been improperly managed, and a determination to any vital part brought on, send for the physician.

1351. *Measles* frequently assume an alarming character, too much so to entitle them to a place in the list of common casualties. They are at all times too serious to be left, with safety, in the hands of the domestic practitioner. Medical aid, therefore, should be instantly sought for, as much depends on proper management during the first stage of the fever. The approach of this disease may be known, by attending to the symptoms which precede the eruption, in the following order: First, the patient complains of shivering, with a sense of coldness, a thin watery discharge from the nose, hoarseness, cough, and a continued flow of tears from the eyes, which appear red and inflamed. These symptoms continue to increase in violence, until the eruption is completed, when they gradually subside. As this disorder has frequently a putrid tendency, which can only be counteracted by the scientific skill of the physician, and which, if neglected, or improperly treated, proves fatal, there can be no excuse for not calling for his aid at the commence

ment of the attack. But that no time may be lost, should there be no physician present, an emetic of some gentle kind may be given and repeated every half hour till vomiting be excited. If it should not act on the bowels, take mild aperient medicine every fourth hour; but this is not to be repeated after a motion has been procured. The patient should be kept in an equal temperature, near sixty-four degrees of Fahrenheit; if exposed to a higher degree of heat, the fever might be increased; if to a lower temperature, the cough and hoarseness would be aggravated. Wine, or wine and water, and all other fermented liquors must be avoided. Toast and water, barley water, apple-water, rennet whey, tamarind tea, coffee, tea, or any other weak diluting beverage, may be freely used, provided they are of an equal warmth to milk when drawn from the cow; also, weak lemonade.

1352. *Soothing Beverage for a Cough, after Measles.*—Two ounces of figs, two ounces of raisins, two ounces of pearl barley, and half an ounce of liquorice-root. Boil them together in a pint and a half of water, and strain off the liquor. A tea-cupful to be taken night and morning.

1353. *Costiveness* may be relieved by a change of diet, exercise on horseback, or any other exercise in the open air, or by taking one of the following pills an hour before dinner:—

Take of Socotrine aloes, thirty grains; gum mastic, ten grains; oil of wormwood, one drop; tincture of aloes, a sufficient quantity to form the ingredients into a mass, which must be divided into twelve pills.

This is an excellent dyspeptic pill, and will afford great relief in all cases of weak digestion.

1354. *Remedies for Dysentery.*—Black or green tea, steeped in boiling milk, seasoned with nutmeg, and best of loaf-sugar, is excellent for the dysentery. Cork burnt to charcoal, about as big as a hazel-nut, macerated, and put in a tea-spoonful of brandy, with a little loaf sugar and nutmeg, is very efficacious in cases of dysentery and cholera-morbus. If nutmeg be wanting, peppermint-water may be used. Flannel wet with brandy, powdered with Cayenne pepper, and laid upon the bowels, affords great relief in cases of extreme distress.

1355. *Another Remedy.*—Dissolve as much table-salt in keen vinegar as will ferment and work clear. When the foam is discharged, cork it up in a bottle, and put it away for use. A large spoonful of this, in a gill of boiling water, is very efficacious in cases of dysentery and colic.

1356. *Loss of Appetite.*—This is generally symptomatic, and varies according to the occasional cause. The continued use of warm tea, of wine, or other spirituous liquors, diluted with warm water, or the use of warm water alone, if long continued, will occasion a relaxed state of the muscular coat of the stomach. This organ also suffers from anxiety of mind, a sedentary life, or a costive habit; from these and other causes it becomes weakened, irritable, and incapable of digesting the most simple food. To restore the tone of the stomach, first give this emetic:—

Take of ipecacuanha, in fine powder, one scruple; horse-radish tea, two ounces. Mix them together. Between the times of the operation, half a pint of horse-radish tea should be drank, but not repeated oftener than twice or thrice. Afterwards keep the bowels regular by the following aperient pills:—

Take, rhubarb, in fine powder, carbonated kali, of each thirty grains; ginger, in fine powder, one scruple; balsam of Peru, a sufficient quantity to form a mass; divide it into twenty-four pills. Dose, three or four every other night, at bed-time.

At the same time, to restore the tone of the digestive organs, the following decoction should be taken:—

Take of Peruvian bark, six drachms; Cascarilla bark, two drachms. Bruise them in a mortar, and boil them in a pint and a half of water for a few minutes; strain off the liquor while hot, then add tincture of bark, two ounces; diluted nitric acid, a drachm and a half. Dose, four large spoonsful, three times a day.

1357. *Cramp and Spasm.*—It frequently happens that persons are extremely annoyed by cramp during the night, which may be relieved by the following tincture:—

Take of tincture of opium, two drachms; ether, half an ounce. Mix them together, and take thirty or forty drops every night, at bed-time.

1358. *How to apply Blisters.*—A considerable degree of pain and inflammation often follows the application of blisters, which

may be obviated, by covering the blister-plaster with very thin muslin, which will prevent any part of it remaining on the skin, after the removal of the blister. The muslin should be pressed down, and rubbed with the finger upon the surface of the blister-plaster.

1359. *Mustard Plasters*—Should be covered with muslin, or the poultice put in a cloth bag, before being applied to the skin.

1360. *To prevent Lock-jaw.*—Immerse the part injured in strong lye, as warm as can be borne. But first, as in all cases of wounds, apply spirits of turpentine on lint.

1361. *For a Stiff Joint.*—An ointment made from the common ground-worms, which boys dig to bait fishes, rubbed on with the hand, is said to be excellent, when the sinews are drawn up by disease or from a sprain.

1362. *Easy Method of curing the Scurvy.*—The root of the garden carrot abounds in a nutritious saccharine juice, and is slightly aromatic. These are desirable properties against the scurvy. To experience the good effects of these properties, *the roots must be eaten raw.* There is nothing unpleasant in this; on the contrary, it is what the common people often do by choice. These roots would keep well during the longest voyage, packed up in casks, having the interstices filled with sand. Each sailor might be allowed to eat one root every day, or every other day, according to the state of their health, and the quantity of roots on board.

1363. *To make Cliver, or Goose-grass Ointment; remarkable for its salutary effects in cases of inveterate Scurvy.*—To a pound of hog's-lard melted, without spice or salt, put as much clivers as the lard will moisten, and boil them together over a slow fire; after stirring it till it becomes a little brown, strain it through a cloth; and when cold, take the ointment from the water that will remain at the bottom, and it will be fit for use.

1364. *Easy Method of attracting Ear-wigs from the Ear.*—A person lately having an earwig crept into his ear, and knowing the peculiar fondness that insect has to apples, immediately ap-

plied a piece of apple to the ear, which enticed the creature cut, and thereby prevented the alarming consequences which might have otherwise ensued.

1365. *Simple remedies for Scarlet Fever.*—Open the bowels regularly every day, with some mild aperient medicine, such as castor oil, senna, etc., and keep the patient at rest, and comfort ably warm; sponge the surface with tepid water, two or three times a day; while it is hotter than natural, admit fresh air; live on a bland diet, such as a cup full of arrow-root, several times a day; toast-water for common drink. Gargle made of strong sage tea, honey and alum, or borax, may be used from the commencement, if the throat is affected."—*Dr. T. P. Hereford.*

1366. *The French Method of making Whey.*—Mix together equal parts of best vinegar and cold water; a table-spoonful of each will suffice for a pint of milk. It is not, however, all to be put in, whether necessary or not; but when the milk just boils, pour in just as much of the acid as will turn it, and no more. Beat up together the white and shell of one egg, which boil up in the whey. Then set it aside till quite clear. Pour it off very steadily through a muslin strainer. Sweeten to taste. with loaf-sugar. This whey is very pleasant, and answers every good purpose of white wine whey, while it is not liable to the objection of being heating, and is also very much less expensive.

1367. *Calves'-feet Jelly.*—Take two calves' feet, and add to them one gallon of water; which reduce, by boiling, to one quart. Strain it, and when cold skim the fat entirely off. Add to this the white of six or eight eggs, well beaten, half a pint of wine, half a pound of loaf-sugar, and the juice of four lemons, and let them be well mixed. Boil the whole for a few minutes, stirring it constantly, and then pass it through a flannel strainer.

This forms a very nutritious article of diet for the sick and convalescent. When it is desired, the wine can be omitted.—*Ellis.*

1368. *Chicken Water.*—Take half a chicken, divested of all fat, and break the bones; add to this half a gallon of water, and boil for fifteen or twenty minutes. Season with salt.

This was freely employed by the late Dr. Parrish in cholera at its commencement. Taken warm, it produces vomiting, and washes out the stomach.

1369. *Essence of Beef.*—Put into a porter bottle a sufficient quantity of lean beef, sliced, to fill up its body, cork it with a paper stopple, and place it in a pot of cold water, attaching the neck, by means of a string, to the handle of the vessel. Boil this for three-quarters of an hour, then pour off the liquor, and skim it. To this preparation may be added spices and salt.

1370. *A very reviving Odor.*—Fill with recently gathered, and dried lavender-flowers, stripped from their stalks, small wide-necked scent-bottles, and just cover them with *strong* acetic acid. A morsel of camphor, the size of a hazel-nut, may be added, with advantage, to the lavender, in each bottle. Sound, new, and closely fitting corks should be used, to secure the mixture from the air. It is exceedingly refreshing and wholesome, and has often proved very acceptable to invalids. The lavender should be gathered for it before it is quite fully blown.

1371. *Easy Method of obtaining Water in almost any situation.*—The ground must be perforated by a borer. In the perforation is placed a wooden pipe, which is driven down with a mallet, after which the boring is continued, that the pipe may be driven still farther. In proportion as the cavity of the borer becomes loaded, it is drawn up and emptied; and in time, by the addition of new portions of wooden pipe, the boring is carried to any depth, and water is generally obtained.

1372. *Method of Draining Ponds in Level Grounds.*—At a certain distance below the surface of the earth, there sometimes is a stratum of loose sand, which freely admits the passage of water. This stratum is at various depths, in different elevations; but it will be generally found, that lands most subject to stagnant ponds have but a shallow stratum of clay over the sand. All that is necessary, therefore, is to dig a pit in the bottom of the pond, till you arrive at this stratum of sand, when the water will be immediately absorbed, and the pond emptied.

1373. *To preserve Fishing-rods.*—Oil your rods, in summer, with linseed oil, drying them in the sun, and taking care the parts lie flat: they should be often turned, to prevent them from warping. This will render them tough, and prevent their being worm-eaten; in time they will acquire a beautiful brown color. Should they get wet, which swells the wood, and makes it fast in the sockets, turn the part round over the flame of a candle a short time, and it will be easily set at liberty.

1374. *To gild Letters on Vellum or Paper.*—Letters written on vellum or paper are gilded in three ways; in the first, a little size is mixed with the ink, and the letters are written as usual; when they are dry, a slight degree of stickiness is produced by breathing on them, upon which the gold leaf is immediately applied, and by a little pressure may be made to adhere with sufficient firmness. In the second method, some white-lead or chalk is ground up with strong size, and the letters are made with this by means of a brush; when the mixture is almost dry, the gold leaf may be laid on, and afterwards burnished. The last method is to mix up some gold powder with size, and make the letters of this by means of a brush.

1375. *To make Pounce.*—Gum-sandarac, powdered and sifted very fine, will produce an excellent preventive to keep ink from sinking in the paper after you have had occasion to scratch out any part of the writing.

1376. *Another Method.*—Cuttle-fish bone, properly dried, one ounce; best rosin, one ounce; and the same quantity of burnt alum, well incorporated together, will make very good pounce equal, if not superior, to any bought at the shops.

1377. *To cut Glass.*—Take a red-hot shank of a tobacco-pipe, lay it on the edge of your glass, which will then begin to crack; then draw the shank end a little gently before, and it will follow any way you draw your hand.

1378. *Mrs. Hooker's Method of preparing and applying a Composition for Painting in Imitation of the Ancient Grecian Manner.*—Put into a glazed earthen vessel four ounces and a half of gum arabic, and eight ounces, or half a pint (wine measure) of cold spring water; when the gum is dissolved, stir in

seven ounces of gum-mastic, which has been washed, dried, picked, and beaten fine. Set the earthen vessel containing the gum-water and gum-mastic over a slow fire, continually stirring and beating them hard with a spoon, in order to dissolve the gum-mastic; when sufficiently boiled, it will no longer appear transparent, but will become opaque and stiff, like a paste. As soon as this is the case, and the gum-water and mastic are quite boiling, without taking them off the fire, add five ounces of white wax, broken into small pieces, stirring and heating the different ingredients together, till the wax is perfectly melted, and has boiled. Then take the composition off the fire, as boiling it longer than necessary would only harden the wax, and prevent its mixing so well afterwards with water. When the composition is taken off the fire, and in the glazed earthen vessel, it should be beaten hard, and whilst hot (but not boiling) mix with it, by degrees, a pint (wine measure) or sixteen ounces more of cold spring water; then strain the composition, as some dirt will boil out of the gum-mastic, and put it into bottles. The composition, if properly made, should be like a cream, and the colors when mixed with it as smooth as with oil. The method of using it, is to mix with the composition, upon an earthen pallet, such colors in powder, as are used in painting with oil, and such a quantity of the composition to be mixed with the colors as to render them of the usual consistency of oil colors; then paint with fair water. The colors, when mixed with the composition, may be laid on either thick or thin, as may best suit your subject; on which account, this composition is very advantageous, where any particular transparency of coloring is required; but in most cases it answers best if the colors be laid on thick, and they require the same use of the brush as if painting with body colors, and the same brushes as used in oil painting. The colors, if ground dry, when mixed with the composition, may be used by putting a little fair water over them; but it is less trouble to put some water when the colors are observed to be growing dry. In painting with this composition, the colors blend without difficulty when wet, and even when dry the tints may easily be united by means of a brush and a very small quantity of fair water. When the painting is finished, put some white wax into a glazed earthen vessel over a slow fire, and when melted, but not boiling, with a hard brush cover the painting with the wax, and when cold take a moderately hot iron, such as is used for ironing linen,

and so cold as not to hiss, if touched with anything wet, and draw it lightly over the wax. The painting will appear as if under a cloud till the wax is perfectly cold, as also whatever the picture is painted upon is quite cold; but if, when so, the painting should not appear sufficiently clear, it may be held before the fire, so far from it as to melt the wax but slowly; or the wax may be melted by holding a hot poker at such a distance as to melt it gently, especially such parts of the picture as should not appear sufficiently transparent or brilliant; for the oftener heat is applied to the picture, the greater will be the transparency and brilliancy of coloring; but the contrary effect would be produced if too sudden or too great a degree of heat was applied, or for too long a time, as it would draw the wax too much to the surface, and might likewise crack the paint. Should the coat of wax put over the painting, when finished, appear in any part uneven, it may be remedied by drawing a moderately hot iron over it again, as before-mentioned, or even by scraping the wax with a knife; and should the wax, by too great or too long application of heat, form into bubbles at particular places, by applying a poker heated, or even a tobacco-pipe made hot, the bubbles would subside; or such defects may be removed by drawing anything hard over the wax, which would close any small cavities.

When the picture is cold, rub it with a fine linen cloth. Paintings may be executed in this manner upon wood (having first pieces of wood let in behind, across the grain of the wood, to prevent its warping), canvas, card, or plaster of Paris. The plaster of Paris would require no other preparation than mixing some fine plaster of Paris, in powder, with cold water, the thickness of a cream; then put it on a looking-glass, having first made a frame of bees'-wax on the looking-glass, the form and thickness you would wish the plaster of Paris to be of, and when dry take it off, and there will be a very smooth surface to paint upon. Wood and canvas are best covered with some gray tint, mixed with the same composition of gum-arabic, gum mastic, and wax, and of the same sort of colors as before-mentioned, before the design is begun, in order to cover the grain of the wood or the threads of the canvas. Paintings may also be done in the same manner, with only gum-water and gum-mastic, prepared the same way as the mastic and wax; but instead of putting seven ounces of mastic, and, when boiling, adding five ounces of wax, mix twelve ounces of gum-mas-

tic with the gum-water, prepared as mentioned in the first part of this receipt; before it is put on the fire, and when sufficiently boiled and beaten, and is a little cold, stir in, by degrees, twelve ounces, or three-quarters of a pint (wine measure) of cold spring water, and afterwards strain it. It would be equally practicable painting with wax alone, dissolved in gum-water in the following manner: Take twelve ounces, or three-quarters of a pint (wine measure) of cold spring water, and four ounces and a half of gum-arabic, put them into a glazed earthen vessel, and when the gum is dissolved, add eight ounces of white wax. Put the earthen vessel, with the gum-water and wax, upon a slow fire, and stir them till the wax is dissolved, and has boiled a few minutes; then take them off the fire, and throw them into a basin, as by remaining in the hot earthen vessel the wax would become rather hard; beat the gum-water and wax till quite cold. As there is but a small proportion of water in comparison to the quantity of gum and wax, it would be necessary, in mixing this composition with the colors, to put also some fair water. Should the composition be so made as to occasion the ingredients to separate in the bottle, it will become equally serviceable, if shaken before used, to mix with the colors.

1379. *The Best Season for Painting Houses.*—The outside of buildings should be painted during autumn or winter. Hot weather injures the paint by drying in the oil too quickly; then the paint will easily rub off. But when the paint is laid on during cold weather, it hardens in drying, and is firmly set.

1380. *A cheap and simple Process for Painting on Glass, sufficient for the purpose of making a Magic Lanthorn.*—Take good clear resin, any quantity, melt it in an iron pot; when melted entirely, let it cool a little, and before it begins to harden, pour in oil of turpentine sufficient to keep it liquid when cold. In order to paint with it, let it be used with colors ground in oil, such as are commonly sold in color shops.

1381. *To make Phosphorus.*—Two-third parts of quick-lime (*i. e.* calcined oyster-shells), and one-third of flour of brimstone, put into a crucible for an hour, and exposed to the air for an hour, become phosphorus.

1382. *To make an Illuminated or Phosphoric Bottle, which will preserve its Light for several months.*—By putting a piece of phosphorus, the size of a pea, into a phial, and adding boiling oil until the bottle is a third full, a luminous bottle is formed; for, on taking out the cork, to admit atmospheric air, the empty space in the phial will become luminous.

Whenever the stopper is taken out in the night, sufficient light will be evolved to show the hour upon a watch; and if care be taken to keep it, in general, well closed, it will preserve its illuminative power for several months.

1383. *To Marble Books or Paper.*—Marbling of books or paper is performed thus:—Dissolve four ounces of gum arabic in two quarts of fair water; then provide several colors mixed with water in pots or shells, and with pencils peculiar to each color; sprinkle them by way of intermixture upon the gum-water, which must be put into a trough, or some broad vessel; then, with a stick, curl them, or draw them out in streaks to as much variety as may be done. Having done this, hold your book, or books, close together, and only dip the edges in, on the top of the water and colors, very lightly; which done, take them off, and the plain impression of the colors in mixture will be upon the leaves; doing as well the ends as the front of the book in like manner, and afterwards glazing the colors.

1384. *To Write Secretly on a Pocket Handkerchief.*—Dissolve alum in pure water, and write upon a fine white handkerchief, which, when dry, will not be seen at all; but when you would have the letters visible, dip the handkerchief in pure water, and it will be of a wet appearance all over, except where it was written on with the alum water.

You may also write with alum water upon writing paper, which will not be visible till dipped in water.

1385. *To keep Insects out of Bird-Cages.*—Tie up a little sulphur in a silk bag, and suspend it in the cage. For mocking-birds this is essential to their health; and the sulphur will keep all the red ants and other insects from cages of all kinds of birds. Red ants will never be found in a closet or drawer if a small bag of sulphur is kept constantly in these places

1386. *Of Books, Mental Cultivation, &c.*—Our work would be incomplete, without some reference to mental as well as material improvement. In truth, we have aimed, throughout this and a former book,* to make the connection between the cultivation of the mental faculties and true household economy apparent. To work properly we must think rightly. Science is as necessary in the kitchen as in the laboratory. The reason why men cooks are preferred above women cooks, and better paid, is, the former study their art as a science. Knowledge is power, in domestic life as well as in the political arena. Let the woman elevate her position by her learning; let her understand the nature and influence of her daily employments, cultivating her taste and refining her manners by the true standard of moral excellence; thus making her home-pursuits conduce to the harmony and happiness of the general plan of life in which she, the wife and mother, is the centre of attraction and volition, and how important for humanity her sphere becomes.

1387. *Choice of Reading.*—Never keep house without books. Life is not life to any great purpose where books are not. The BIBLE is indispensable. Out of its treasures of Divine wisdom all best human wisdom is derived or directed. Then have other books, as your means permit. If these are rightly chosen, every volume will be a teacher, a friend—a fountain, from whence may be drawn sweet streams of pleasure and profit. Poetry, story, biography, history, essays, and religious works—I name these in the order a child chooses books—all are needed. American literature—that is, books on subjects connected with our own country, should be first in our reading. Bancroft's "History of the United States," Sparkes' "American Biographies," Lippincott's "Cabinet Histories of the States," Mrs. Ellet's "Women of the Revolution"—these should be accessible to every family in the Union. Read on every subject connected with your own pursuits and employments. Knowledge will aid you even in hand labor; and a good book is a safe refuge in idle hours.

1388. *Of Periodicals and Newspapers.*—Every family should take a newspaper; this, the lady of the house should insist

*See "Mrs. Hale's New Cook Book."

upon—kindly, to be sure; for a pleasant request is as powerful as "a soft answer" in "turning away wrath." Men, usually, are willing to subscribe for a paper, though some are indifferent to this great source of family instruction as well as pleasure; but they forget, when the year comes round, to *renew* their subscription in the right way. So the women of the family should be sure to remember the printer.

Another important source of family improvement is the periodicals or monthly magazines. These are now, thanks to the cheap postage system, accessible to the dwellers in the most remote places of our wide land. As a work for our own sex, Godey's Lady's Book is the best that can be taken in a family, because it furnishes information on every branch of home duties and pursuits; and moreover, upholds that pure standard of morals in its lightest fiction, which renders it a safe enjoyment for the young.

Many other periodicals might be named, all excellent of their kind, and where the expense can be afforded, each household should obtain one or more of these. A better way would be for a neighborhood to unite and take a half dozen different publications, securing the inestimable advantage of reading every month the best religious, medical, agricultural, scientific, literary, and illustrated magazines—thus keeping up with the progress of art, the march of mind, the material advancement, and the moral improvement of the world.

1389. *How can we Pay for the Magazines?*—Is the question with many families. Very easily, if you have the will—one half of the money spent on tobacco would, if laid out in books, soon give every family a library. And, young ladies, if you cannot persuade your brothers to throw aside their cigars, and subscribe, why, look over this book, and see, if from its economical hints you cannot devise some plan of earning or saving, whereby you may be able to pay for the magazines. Do this one year; husband or brother will then be ready to aid. Woman has everything to gain from Christian civilization; she should lead the way.

PART VIII.

ELEGANT AND INGENIOUS ARTS, ETC.

Water-Colors—Potichomanie—Grecian Painting—Diaphanic Feather Flowers—Sea-Weeds—Botanical Specimens—Leaves—Plants—Fungi—Transferring—Etching—Staining—Leather-work—Games, etc.

1390. *Home Pursuits, etc.*—See Part III., page 151.

1391. *Accomplishments.*—These are very desirable for the household, because the inmates are made happier by refined and ingenious arts and pursuits, and are fitted to improve the taste of others.

1392. Children and young persons, of both sexes, should learn as many of these arts as they possibly can without neglecting duties. Pleasant modes of employing leisure hours save people from many temptations, and add much to the happiness of life.

WATER-COLORS USED IN DRAWING.

1393. *Indian Ink.*—The best is stamped with Chinese characters, breaks with a glossy fracture, and feels smooth when rubbed on the plate.

1394. *Hair Pencils* are made of camel's-hair; if they come to a point, when moistened, without splitting, they are good.

1395. *Drawing Paper.*—That made without any wire marks, and called wove paper, is the best; it is made of various sizes and thicknesses.

1396. *To make a good White.*—Clarify white lead with white-wine vinegar. After the powder has settled, pour off the vinegar, put the powder into a glass of water, stir it, and pour the water off while it is white into another glass; when it is settled, pour off the water, and an excellent white will be obtained. To this add gum enough to give it a gloss.

DIRECTIONS FOR MIXED COLORS.

1397. *Ash Color.*—Ceruse white, Keating's black and white, shaded with cherry-stone black.

1398. *Bay.*—Lake and flake white, shaded with carmine; bistre and vermilion shaded with black.

1399. *Changeable Silk.*—Red lead and masticot water, shaded with sap-green and verdigris.

1400. *Another.*—Lake and yellow, shaded with lake and Prussian blue.

1401. *Cloud Color.*—Light masticot, or lake and white, shaded with blue verditer.

1402. *Another.*—Constant white and Indian ink, and a little vermilion.

1403. *Another.*—White, with a little lake and blue verditer, make a good cloud color for that part next the horizon.

1404. *Crimson.*—Lake and white, with a little vermilion, shaded with lake and carmine.

1405. *Flame Color.*—Vermilion and orpiment, heightened with white.

1406. *Another.*—Gamboge, shaded with minium and red lead.

1407. *Flesh Color.*—Ceruse, red lead, and lake, for a swarthy complexion, and yellow ochre.

1408. *Another.*—Constant white and a little carmine, shaded with Spanish liquorice washed with carmine.

1409. *French Green.*—Light pink and Dutch bice, shaded with green pink.

1410. *Glass Grey.*—Ceruse, with a little blue of any kind.

1411. *Hair Color.*—Masticot, ochre, umber, ceruse, and cherry-stone black.

1412. *Lead Color.*—Indigo and white.

1413. *Light Blue.*—Blue bice, heightened with flake white.

1414. *Another.*—Blue verditer, and white of any sort, well ground.

1415. *Light Green.*—Pink, smalt, and white.

1416. *Another.*—Blue verditer and gamboge.

1417. *Another.*—Gamboge and verdigris. This is chiefly used for the ground colors of trees, fields, &c.

1418. *Lion Tawny.*—Red lead and masticot, shaded with umber.

1419. *Murrey.*—Lake and white lead.

1420. *Orange.*—Red lead and a little masticot, shaded with umber.

1421. *Orange Tawny.*—Lake, light pink, a little masticot, shaded with gall-stone and lake.

1422. *Pearl Color.*—Carmine, a little white, shaded with lake.

1423. *Popinjay Green.*—Green and masticot; or pink and a little indigo, shaded with indigo.

1424. *Purple.*—Indigo, Spanish brown, and white ; or blue bice, red and white lead ; or blue bice and lake.

1425. *Russet.*—Cherry-stone black and white.

1426. *Scarlet.*—Red lead and lake, with or without vermilion.

1427. *Sea Green.*—Bice, pink and white, shaded with pink.

1428. *Sky Color.*—Light masticot and white, for the lowest and lightest parts ; second, red ink and white ; third, blue bice and white ; fourth, blue bice alone. These are all to be softened into one another at the edges, so as not to appear harsh.

1429. *Sky Color for Drapery.*—Blue bice and ceruse, or ultramarine and white, shaded with indigo.

1430. *Straw Color.*—Masticot and a very little lake, shaded with Dutch pink.

1431. *Yellow Color.*—Indigo, white, and lake ; or fine Dutch bice and lake, shaded with indigo ; or litmus smalt and bice, the latter predominant.

1432. *Water.*—Blue and white, shaded with blue, and heightened with white.

1433. *Another.*—Blue verdigris, shaded with indigo, and heightened with white.

1434. *To prevent Colors from Cracking.*—Boil two ounces of the best and clearest glue, with one pint of clear water, and a half an ounce of alum, till dissolved. With this temper those colors intended for the sky.

1435. *To make a Solution of Gum.*—Dissolve an ounce of white gum arabic, and half an ounce of double refined sugar, in a quart of spring water ; strain it through a piece of muslin, and bottle it to keep it free from dust.

1436. *To keep Flies from the Work.*—Having prepared the gum water for the colors, add a little coloquintida.

1437. *To prepare Alum Water.*—Take four ounces of alum, and a pint of spring water; boil it till the alum is thoroughly dissolved, and then filter it through blotting-paper.

1438. *To use Alum Water.*—Before laying on the colors, take some of this water, hot, and with a sponge wet the back of the paper, which, if not good, must be wet three or four times, letting the paper dry each time before wetting it again. This will prevent the sinking of the colors, and give them additional lustre.

1439. *To make Lime Water.*—Put unslacked lime in a well-glazed pan; cover it with pure water, and let it remain for one day. Then strain off the water. This water will change sap-green into blue.

TO PREPARE WASH COLORS FOR MAPS.

1440. *Blue.*—Dilute Saxon blue with water; or to the solution of litmus add distilled vinegar.

1441. *Green.*—Dissolve verdigris in distilled water and add gum arabic.

1442. Or, dissolve sap-green in water and add gum.

1443. *Red.*—Steep Brazil dust in vinegar, with alum. Or, dissolve litmus in water and add spirit of wine.

1444. Or, steep cochineal in water, strain, and add gum.

1445. *Yellow.*—Dissolve gamboge in water; or French berries steeped in water the liquor strained, and gum arabic added.

TO MIX WATER-COLORS FOR ANIMALS.

1446. *Horses, Black.*—Black lightly laid on, shaded with Keating's black and bistre, heightened with masticot.

1447. *Horses, Chestnut Brown.*—Red ochre and black mixed together, shaded with black, heightened with red ochre and white.

1448. *Horses, Gray.*—Black and white mixed, shaded with black, white, and bistre; heightened with pure water.

1449. *Lions.*—Color much in the same manner as horses, adding lake in the ground color.

1450. *Bears.*—Brown ochre, red ochre, and black, mixed; shaded with bistre and ivory black.

1451. *Wolves.*—Spanish liquorice and black, shaded with black.

1452. *Asses.*—Black and white mixed; or, add a little brown ochre, shaded with black.

1453. *Elephants.*—Black, white, and Spanish liquorice, mixed; shaded with black and bistre; the inner part of the nose, vermilion and white, shaded with black.

1454. *Monkeys.*—Dutch pink and black, heightened with masticot and white: the face, black and bistre mixed, as also their feet; their bodies, shaded underneath with black and pink mixed with a little brown ochre.

FRUIT IN WATER COLORS.

1455. *Apples.*—Thin masticot mixed with verdigris, shaded with brown ochre.

1456. *Cherries.*—Vermilion and lake, shaded with carmine, heightened with vermilion and white.

1457. *Grapes, Blue.*—Dark purple shaded with blue; the bloom, bice.

1458. *Grapes, White.*—Verdigris and masticot mixed, shaded with thin verdigris heightened with masticot and white.

1459. *Peaches.*—Thin masticot shaded with brown ochre; the bloom, lake heightened with white.

1460. *Pears.*—Masticot deepened and mellowed with brown ochre.

1461. *Strawberries.*—White; draw it over with vermilion and lake, shaded with fine lake, heightened with red lead and masticot mixed, and then with white; stipple them with white and thin lead.

TO PAINT FLOWERS.

1462. *Anemones.*—A thin wash of gamboge shaded with bistre; or carmine and sap-green blended together. The stripes carmine, shaded with the same; indigo in the darkest parts, or stipple with it.

1463. *Leaves.*—Sap green, shaded with indigo and French berries; the stalk brown.

1464. *Honeysuckles.*—Inside of the petals, white shaded with sap-green, or gamboge and bistre.

1465. The *insides* are to be shown by curling the leaves back at the ends, or by splitting them.

1466. The *outsides*, a thin wash of carmine and lake mixed, shaded with carmine—indigo for the darkest shades.

1467. *Stalks.*—Sap-green and carmine.

1468. *Leaves.*—Sap-green, shaded with indigo and French berries.

1469. *Roses.*—A light tint of pure carmine, over which another equally light of Peruvian blue; proceed with the darker shades of carmine of the best sort.

1470. In the darkest part of the flower add a little indigo to give a roundness. If the *seeds* are seen lay on gamboge, shaded with gall-stone.

1471. *Leaves.*—Upper side, sap-green, shaded with indigo and French berries mixed; under-side, white indigo and sap green mixed, shaded with the same.

1472. *Stalks.*—Sap-green and carmine, shaded with indigo.

1473. *Rose-buds.*—A pale wash of carmine, shaded with a stronger wash of the same.

1474. *Stalks* and *leaves*, sap green with a slight wash of carmine.

BIRDS IN WATER-COLORS.

1475. *Eagles.*—Black and brown, shaded with indigo; feathers heightened by brown ochre and white; beak and claws saffron, shaded with bistre; eyes vermilion, heightened with masticot or saffron, shaded with vermilion.

1476. *Geese.*—Ceruse shaded with black; legs, black; bill, red.

1477. *Owls.*—Ochre mixed with white, in different shades; legs, yellow ochre.

1478. *Pheasants.*—White and black mixed; legs, Dutch pink, shaded with black.

1479. *Swans.*—White shaded with black; the legs and bills black; eyes yellow; a ball in the midst.

1480. *Turkeys.*—Back, black and white mixed, shaded off to a white underneath; sprinkled and shaded with black.

LANDSCAPES IN WATER-COLORS.

1481. Sketch the outlines faintly with a black-lead pencil. Then color.

1482. *Colors.*—The most useful are: lake, burnt ochre, gamboge, indigo, light red, sepia, Prussian blue, sienna, and burnt umber.

1483. *The gray color* is made of burnt umber, indigo, and lake; each rubbed separately in a saucer, and then so mixed in a fourth saucer as to produce the exact color—a warm gray. This is thinned for the light tints, as sky and distances. Deeper is to be used for the shadows and near parts, softening with water till the exact effect is produced.

1484. *Buildings* are sometimes tinted with a mixture of lake and gamboge. Burnt ochre is also used. The shadows have an excess of lake.

1485. *Breadths of Light* are obtained by destroying the scattered lights with grays.

1486. *Clouds* are produced by a thin mixture of indigo and lake. They should be tinted with sepia. The lower or horizontal clouds are tinged with ultramarine.

1487. *Figures* are touched with lake and indigo.

1488. *Force* is acquired by adding sepia to indigo, in the cold parts, and sepia with lake to the glowing parts.

1489. *Grass* is washed with a mixture of burnt sienna, indigo, and gamboge; that in shadow has more indigo. Grass and bushes may be brought out by a tint of gamboge; distances may be heightened by lake.

1490. *Hills, retiring.*—Tint the whole with weak blue; then the nearer ones with indigo and lake; add a little gamboge to the next, keeping one subordinate to the other; the most distant being lost in the aerial tints.

1491. *Land, distant.*—Ultramarine and lake. Ground near is tinted with ochre.

1492. *Road and Paths.*—A mixture of lake, burnt umber, and burnt sienna. It may be tinted with ochre.

1493. *Smoke.*—Lake and indigo.

1494. *Trees, distant.*—Ultramarine, with a wash of indigo,

gamboge, and burnt sienna, tinted with gray. The middle distance trees have a thin wash of burnt sienna and gamboge. Nearer trees a wash of burnt sienna, indigo, and gamboge. In the shadows more indigo is used.

1495. *Opposing masses of trees* are tinted with sepia and indigo.

1496. *Windows.*—Indigo and burnt umber.

POTICHOMANIE.

1497. This elegant accomplishment, which has become so extremely popular and fashionable, promises not only to supercede altogether many of those meretricious accomplishments which have hitherto absorbed the attention of our fair countrywomen, but to rank among the fine arts.

1498. *Advantages of this Art.*—It possesses many advantages: and the process is simple and easily acquired.

1499. It is an exceedingly pleasing and interesting employment, requiring no previous knowledge of drawing, yet affording abundant space for the exercise of the most exquisite taste.

1500. The time employed is richly repaid; the results produced are of actual value; articles of ornament and domestic utility being produced, in perfect imitation of the most beautiful Chinese and Japanese porcelain, of Sèvres and Dresden china, and of every form that is usual in the productions of the Ceramic Art.

1501. It furnishes an inexhaustible and inexpensive source for the production of useful and elegant presents, which will be carefully preserved as tokens of friendship, and as proofs of the taste and talent of the giver.

1502. *Articles necessary in the Art of Potichomanie.*—Glass vases (*Potiches en verre,*) of shapes suitable to the different orders of Chinese, Japanese, Etruscan, and French

porcelain, Alumettes, &c.; cups, plates, &c., &c., of Sêvres and Dresden design.

1503. Sheets of colored drawings or prints, characteristic representations of the designs or decorations suitable to every kind of porcelain and china.

1504. A bottle of liquid gum, and three or four hog-hair brushes.

1505. A bottle of varnish, and very fine pointed scissors for cutting out.

1506. An assortment of colors for the foundation, in bottles.

1507. A packet of gold powder, and a glass vessel for diluting the colors.

1508. *Directions.*—We will suppose the object selected for imitation to be a Chinese vase.

1509. After providing yourself with a plain glass vase, of the proper shape, you take your sheets of colored prints on which are depicted subjects characteristic of that peculiar style.

1510. From these sheets you can select a great variety of designs, of the most varied character, on the arrangement and grouping of which you can exercise your own taste.

1511. After you have fully decided upon the arrangement of your drawings, cut them out accurately with a pair of scissors, then apply some liquid gum carefully over the colored side of the drawings, and stick them on the inside of the vase, according to your own previous arrangement—pressing them down till they adhere closely, without any bubbles of air appearing between the glass and the drawings.

1512. When the drawings have had sufficient time to dry, take a fine brush and cover every part of them (without touching the glass) with a coat of parchment size or liquid gum,

which prevents the oil color (which is next applied) from sinking into or becoming absorbed by the paper.

1513. When the interior of the vase is perfectly dry, and any particles of gum size that may have been left on the glass have been removed, your vase is ready for the final and most important process.

1514. You have now to tint the whole of the vase with a proper color to give it the appearance of porcelain; for up to this time, you will recollect, it is but a glass vase, with a few colored prints stuck thereon.

1515. Select from your stock of prepared colors, in bottles, the tint most appropriate to the kind of china you are imitating (as we are now supposed to be making a Chinese vase, it will be of a greenish hue), mix fully sufficient color in a glass vessel, then pour the whole into the vase.

1516. Take now your vase in both hands, and turn it round continually in the same direction, until the color is equally spread over the whole of the interior: when this is satisfactorily accomplished, pour back the remainder. If the prepared color is too thick, add a little varnish to the mixture before applying it.

1517. If preferred, the color may be laid on with a soft brush. Should the vase be intended to hold water, the interior must be well varnished after the above operations, or lined with zinc or tin foil.

1518. If the Potichomanist wishes to decorate the mouth of his vase with a gold border, he can do so by mixing some gold powder in a few drops of the essence of lavender and some varnish, applying it on the vase with a fine brush; or he can purchase gold bands, already prepared for application, in varied sheets, suitable to the Potichomanie designs.

1519. Potichomanists have found the art capable of greater results than the mere imitation of porcelain vases, by the introduction of glass panels (previously decorated with beautiful flowers on a white ground) into drawing-room doors, and also

into walls which, being panel papered, offer opportunities of introducing centre pieces of the same character as the doors; elegant chess and work-tables, folding and cheval-screens, panels for cabinets, chiffoniers and book-cases, slabs for pier and console-tables, glove-boxes, covers for books, music, albums, &c.

1520. The most common cause of failure is, that the drawings inside are not thoroughly pressed down.

GRECIAN PAINTING.

1521. *Grecian Painting* is the art of imitating *oil* paintings.

1522 This truly beautiful imitation, if well done, is so perfect that none save connoisseurs can discern, at sight, the difference.

1523. *Engravings* best suited to this style of painting are mezzotint or aquatint, though fine lithographs are used.

1524. *Rule First.*—Procure a frame one inch longer than the engraved part of the print.

1525. *Second.*—Cut the engraving the size of the frame, then make a stiff paste, and spread it thickly on the frame.

1526. *Third.*—Place the engraving face down and sponge it gently with water; then press the frame firmly and evenly down on; leave it till entirely dry (not by the fire), and it will become even and tight.

1527. *To make the Grecian Varnish.*—Take one part turpentine, two parts alcohol (90 proof), three parts balsam of fir, and mix.

1528. *To use the Varnish.*—Pour sufficient spirits of turpentine on the back of the picture to moisten it well, then put on the varnish and rub it *thoroughly* with a stiff brush, and continue to apply it until the picture is perfectly transparent.

1529. *Spots.*—Leave the picture for twenty-four hours, after

which if white spots appear, showing that the varnish has not been effectual, repeat the process. Sometimes it has to be done several times.

1530. *Drying.*—Place the picture, face downward, where it will be free from dust, and leave it three or four days.

1531. *Paints.*—These are put on the back of the engraving.

1532. *Eyes.*—For blue eyes, permanent blue and white; for hazel eyes, yellow ochre and Van Dyke brown.

1533. *Flesh Tints.*—Flake white, with a very little vermilion and Naples yellow.

1534. *Foliages.*—Chrome yellow and Prussian blue, with any of the browns.

1535. *Sky.*—Clouds touched in with white; the rest permanent blue and white.

1536. *Water.*—The light parts with white, the rest the same as the sky. If a bright scene, and with trees, of a greenish brown.

1537. *Hair and Eyebrows.*—Yellow ochre and Van Dyke brown, or raw sienna.

1538. *Backgrounds.*—The most agreeable tint is a greenish brown.

1539. *White Background.*—Flake and silver white.

1540. *Buff Background.*—Naples yellow.

1541. *Orange Background.*—Chrome yellow, with vermilion.

1542. *Blue Background.*—Flake white and Prussian blue

1543. *Gray Background.*—White, Prussian blue, and vermilion.

1544. *Pink Background.*—White and vermilion.

1545. *Crimson Background.*—Vermilion and white, with carmine.

1546. *Green Background.*—Chrome yellow and Prussian blue.

1547. *Paints for the Front of the Picture.*—Drying oil must be used with all the colors on the front.

1548. *Shading for the Flesh on the Front.*—Carmine and Van Dyke brown laid on lightly, and the edges touched off with the finger.

1549. *Cheeks.*—Carmine; soften the edges carefully.

1550. *Lips.*—Carmine, with a touch of vermilion.

1551. *Hair and Eyebrows.*—Yellow lake and Van Dyke brown.

1552. *Draperies.*—These are always painted on the back, and shaded on the front with Van Dyke brown.

1553. *Backgrounds.*—If plain, glaze with yellow lake.

1554. *Foliages.*—Yellow lake and Van Dyke brown.

1555. *General Directions.—First*—Lay the paint thickly on the back, and be careful to cover every part, but not to go over the edges.

1556. *Second*—When the painting is finished let it dry four days, and then cover the front with a coat of mastic varnish.

1557. *Materials required*, are a palette, palette-knife, flat varnish brush, three sizes of bristle brushes, three sizes of table brushes, drying oil, mastic varnish, spirits of turpentine, Grecian varnish.

1558. *Colors used* are oil colors in tubes. Those gener-

ally needed are silver white, Naples yellow, yellow ochre, brilliant yellow, vermilion, Prussian blue, raw sienna, ivory black, carmine, yellow lake, Van Dyke brown.

1559. *If economy* is an object, some of the above-mentioned materials can be dispensed with

DIAPHANIE.

1560. This is a beautiful, useful, and inexpensive art, easily acquired, and producing imitations of the richest and rarest stained glass; and also of making blinds, screens, skylights, Chinese lanterns, &c., in every variety of color and design.

1561. In decorating his house, an American spends as much money as he can conveniently spare; the elegancies and refinements of modern taste demand something more than mere comfort: yet though his walls are hung with pictures, his drawing-room filled with bijouterie, how is it that the windows of his hall, his library, his staircase, are neglected?

1562. The reason is obvious. The magnificent historical old stained glass might be envied, but could not be brought within the compass of ordinary means. Recent improvements in printing in colors led the way to this beautiful invention, by which economy is combined with the most perfect results.

1563. A peculiar kind of paper is rendered perfectly transparent, upon which designs are printed in glass colors (*vitro de couleurs*), which will not change with the light.

1564. The paper is applied to the glass with a clear white varnish, and when dry, a preparation is finally applied, which increases the transparency, and adds tenfold brilliancy to the effect.

1565. There is another design, printed in imitation of the half-light (*abatiour*); this is used principally for a ground, covering the whole surface of the glass, within which (the

necessary spaces having been previously cut out before it is stuck on the glass), are placed medallion centres of Watteau figures, perfectly transparent, which derive increased brilliancy from the semi-transparency of the surrounding ground.

1566. To ascertain the quantity of designs required, measure your glass carefully, and then calculate how many sheets it will take. The sheets are arranged so that they can be joined together continuously, or cut to any size or shape.

1567. *Practical Instructions.*—Choose a fine day for the operation, as the glass should be perfectly dry and unaffected by the humidity of the atmosphere.

1568. Of course, if you have a choice, it is more *convenient* to work on your glass before it is fixed in the frame. If you are working on a piece of unattached glass, lay it on a *flat* table (a marble slab is preferable), over which you must previously lay a piece of baize or cloth to keep the glass steady.

1569. The glass being thus fixed, clean and polish the side on which you intend to operate (in windows this is the inner side), then with your brush lay on it very equably a good coat of the prepared varnish; let this dry for *an hour*, more or less, according to the dryness of the atmosphere and the thickness of the coat of varnish.

1570. Meantime cut and trim your designs carefuly to fit the glass (if it is one entire transparent sheet you will find it little trouble); then lay them on a piece of paper, face downwards, and damp the back of them with a sponge, applied several times, to equalize the moisture.

1571. After this operation, arrange your time so that your designs may now be finally left to dry for fifteen minutes before application to the glass, the varnish on which has now become tacky or sticky, and in a proper state to receive them.

1572. Apply the printed side next to the glass without pressure; endeavor to let your sheet fall perfectly level and smooth on your glass so that you may avoid leaving creases, which would be fatal.

1573. Take now your palette, lay it flat on the design, and press out all the air bubbles, commencing in the centre, and working them out from the sides; an ivory stick will be found useful in removing creases; you now leave this to dry, and after twenty-four hours apply a slight coat of the liqueur diaphane, leaving it another day, when if dry, apply a second coat of the same kind, which must be left several days: finally, apply a coat of varnish over all.

1574. If these directions are carefully followed, your glass will never be affected by time or by any variations in the weather: it will defy hail, rain, frost and dust, and can be washed the same as any ordinary stained glass, to which, in some respects, it is even superior.

1575. It is impossible to enumerate the variety of articles to the manufacture of which Diaphanie may be successfully applied, as it is not confined to glass, but can be done on silk, parchment, paper, linen, &c., *after they have been made transparent*, which may be accomplished in the following manner:—

1576. Stretch your paper, or whatever it may be, on a frame or drawing board, then apply two successive coats (a day between each,) of diaphanous liquor, and after leaving it to dry for *several* days, cover it with a thin layer of very clear size, and when dry it will be in a fit state to receive the coat of varnish and the designs.

1577. Silk, linen, or other stuffs, should be more carefully stretched, and receive a thicker coat of size than paper or parchment; the latter may be strained on a drawing or any other smooth board, by damping the sheet, and after pasting the edges, stretching it down while damp. Silk, linen, and other stuffs require to be carefully stretched on a knitting or other suitable frame.

1578. Take great care to allow, *whatever you use*, time to dry before applying the liqueur diaphane.

1579. All kinds of screens, lamp-shades, and glasses, lan-

terns, &c., &c., may be made in this way, as heat will produce no effect upon them.

1580. The transparent pictures are successful, because they may be hung on a window frame or removed at will, and the window blinds are far superior to any thing of that kind that have yet been seen.

1581. Instead of steeping the designs in the transparent liquor at the time of printing them, which was previously done *in order to show their transparency to the purchaser*, but which was practically objectionable, as the paper in that state was brittle, and devoid of pliancy, necessitating also the use of a peculiarly difficult vehicle to manage (varnish) in applying it to the glass, the manufacturer now prepares his paper differently, in order to allow the use of parchment size in sticking them on the glass.

1582. The liqueur diaphane, which is finally applied, renders them perfectly transparent. In this mode of operation, no delay is requisite, the designs being applied to the glass immediately after laying on the size, *taking care to press out all the air bubbles*, for which purpose a roller will be found indispensable.

1583. The designs should be damped before the size is applied to them. We are of opinion that this art may be applied to the production of magic-lantern slides, dissolving views, and dioramic effects ; though we are not aware whether such experiments have been tried.

FEATHER FLOWERS.

1584. The art of making feather flowers, though a very easy and inexpensive accomplishment, and yielding pretty ornaments for the mantel-piece or the chiffonier, is but little pursued.

1585. Many persons are under the impression that they can only be made from the feathers of exotic birds, and that

these are expensive. But the following instructions will dispel this misconception, and remove the difficulty.

1586. Procure the best white geese or swans' feathers, have them plucked off the fowl with care not to break the web, free them from down, except a small quantity on the shaft of the feather.

1587. Having procured two good specimens of the flower you wish to imitate, carefully pull off the petals of one, and, with a piece of tissue paper, cut out the shape of each size, taking care to leave the shaft of the feather at least half an inch longer than the petal of the flower.

1588. Carefully bend the feather with the thumb and finger to the proper shape; mind not to break the web.

1589. *To make the Stem and Heart of a Flower.*—Take a piece of wire six inches long: across the top lay a small piece of cotton wool, turn the wire over it, and wind it round until it is the size of the heart or centre of the flower you are going to imitate.

1590. If a single flower, cover it with paste or velvet of the proper color, and round it must be arranged the stamens; these are made of fine India silk, or feathers may be used for this purpose.

1591. After the petals have been attached, the silk or feather is dipped into gum, and then into the farina. Place the petals round, one at a time, and wind them on with Moravian cotton, No. 4; arrange them as nearly like the flower you have for a copy as possible.

1592. Cut the stems of the feathers even, and then make the calix of feathers, cut like the pattern or natural flower. For the small flowers, the calix is made with paste. Cover the stems with paper or silk the same as the flowers; the paper must be cut in narrow strips, about a quarter of an inch wide.

1593. *To make the Pastes of the Calix, Hearts, and Buds of Flowers.*—Take common white starch, and mix it with gum

water until it is the substance of thick treacle; color it with the dyes used for the feathers, and keep it from the air.

1594. *To make the Farina.*—Use common ground rice, mixed into a stiff paste with any dye; dry it before the fire, and when quite hard, pound it to a fine powder.

1595. The buds, berries, and hearts of some double flowers are made with cotton wool, wound around wire, moulded to the shape with thumb and finger.

1596. Smooth it over with gum water, and when dry cover the buds, berries, or calix with the proper colored pastes; they will require one or two coats, and may be shaded with a little paint, and then gummed and left to dry.

1597. Flowers of two or more shades or colors are variegated with water-colors, mixed with lemon-juice, ultra-marine and chrome for blue, and gold may also be used in powder, mixed with lemon-juice and gum water.

1598. The materials required are some good white goose or swan's feathers; a little fine wire, different sizes; a few skeins of fine floss silk, some good cotton wool or wadding, a reel of No. 4 Moravian cotton, a skein of India silk, the starch and gum for pastes, and a pair of small sharp scissors, a few sheets of colored silk paper, and some water-colors, with the following dyes:—

1599. *To Dye Feathers Blue.*—Into two pennyworths of oil of vitriol, mix two pennyworths of the best indigo in powder; let it stand a day or two; when wanted shake it well, and into a quart of boiling water put one tablespoonful of the liquid.

1600. Stir it well, put the feathers in, and let them simmer a few minutes.

1601. *Yellow.*—Put a tablespoonful of the best turmeric into a quart of boiling water; when well mixed, put in the feathers.

1602. More or less of the turmeric will give them different

shades, and a very small quantity of soda will give them an orange hue.

1603. *Green.*—Mix the indigo liquor with turmeric, and pour boiling water over it; let the feathers simmer in the dye until they have acquired the shade you want them. (See 289.)

1604. *Pink.*—Three good pink saucers in a quart of boiling water, with a small quantity of cream of tartar. If a deep color is required, use four saucers. Let the feathers remain in the dye several hours.

1605. *Red.*—Into a quart of boiling water dissolve a teaspoonful of cream of tartar, put in one tablespoonful of prepared cochineal, and then a few drops of muriate of tin.

1606. This dye is expensive, and scarlet flowers are best made with the plumage of the red Ibis, which can generally be had of a bird-fancier or bird-stuffer, who will give directions how it may be applied.

1607. *Lilac.*—About two teaspoonfuls of cudbear, into about a quart of boiling water; let it simmer a few minutes before you put in the feathers. A small quantity of cream of tartar turns the color from lilac to amethyst.

1608. *Black.*—Use the same as for cloth.

1609. *Crimson.*—Dip in acetate of alumina mordant, then in a boiling-hot decoction of Brazil wood—and, last of all, pass through a bath of cudbear.

1610. *Before the feathers* are dyed they must be put into hot water, and let them drain before they are put into the dyes.

1611. *After the feathers* are taken out of the dye, rinse them two or three times in clear cold water (except the red), which must only be done once. Then lay them on a tray, over which a cloth has been spread, before a good fire; when

they begin to dry and unfold, draw each feather gently between your thumb and finger, until it regains its proper shape.

1612. *The leaves of the flowers* are made of green feathers, cut like those of the natural flower, and serrated at the edge with a very small pair of scissors.

1613. For the calix of a moss-rose the down is left on the feather, and is a very good representation of the moss on the natural flower.

1614. *To Preserve Sea-Weed.*—This is a delicate process, and may be made like beautiful pictures.

1615. *First Process.*—Wash the sea-weed in fresh water, then take a plate or dish (the larger the better), cut your paper to the size required, place it on the plate with fresh water, and spread out the plant with a good sized camel-hair pencil in a natural form. Picking out with the pin gives the sea-weed an unnatural appearance, and destroys the characteristic fall of the branches, which should be carefully avoided.

1616. Then gently raise the paper with the specimen out of the water, placing it in a slanting position for a few moments, so as to allow the superabundant water to run off: after which place it in the press.

1617. *The Press.*—The press is made with either three pieces of board or pasteboard. Lay on the first board two sheets of blotting-paper; on that lay your specimens; place straight and smooth over them a piece of old muslin, fine cambric, or linen: then some more blotting-paper, and place another board on the top of that, and continue in the same way.

1618. *The Finishing.*—The blotting-paper and the muslin should be carefully removed and dried every day, and then replaced: at the same time, those specimens that are sufficiently dried may be taken away. Nothing now remains but to write on each the name, date, and locality.

1619. *The Specimens.*—You can either gum the specimens

in a scrap-book, or fix them in, as drawings are often fastened, by making four slits in the page, and inserting each corner.

1620. This is by far the best plan, as it admits of their removal, without injury to the page, at any future period, if it be required either to insert better specimens, or intermediate species. Some of the larger Algæ will not adhere to the paper, and consequently require gumming.

1621. *Another Way.*—After well cleaning and pressing, brush the coarser kinds of Algæ over with spirits of turpentine, in which two or three small lumps of gum mastic have been dissolved, by shaking in a warm place; two-thirds of a small phial is the proper proportion, and this will make the specimens retain a fresh appearance.

BOTANICAL SPECIMENS, LEAF IMPRESSIONS, ETC.

1622. The plants you wish to preserve should be gathered when the weather is dry, and after placing the ends in water, them remain in a cool place till the next day.

1623. When about to be submitted to the process of drying, place each plant between several sheets of blotting-paper, and iron it with a large smooth heater, pretty strongly warmed, till all the moisture is dissipated.

1624. Colors may thus be fixed, which otherwise become pale, or nearly white.

1625. Some plants require more moderate heat than others, and herein consists the nicety of the experiment; but I have generally found, that if the iron be not too hot, and is passed rapidly, yet carefully, over the surface of the blotting-paper, it answers the purpose equally well with plants of almost every variety of hue and thickness.

1626. In compound flowers, with those also of a stubborn and solid form as the Centaurea, some little art is required in

cutting away the under part, by which means the profile and forms of the flowers will be more distinctly exhibited.

1627. This is especially necessary, when the method employed by Major Velley is adopted: viz., to fix the flowers and fructification down with gum upon the paper previous to ironing, by which means they become almost incorporated with the surface.

1628. When this very delicate process is attempted, blotting-paper should be laid under every part excepting the blossoms, in order to prevent staining the white paper. Great care must be taken to keep preserved specimens in a dry place.

1629. *Skeleton leaves* may be made by steeping leaves in rain water, in an open vessel, exposed to the air and sun. Water must occasionally be added to compensate loss by evaporation.

1630. The leaves will putrefy, and then their membranes will begin to open; then lay them on a clean white plate, filled with clean water, and with gentle touches take off the external membranes, separating them cautiously near the middle rib. When there is an opening toward the latter the whole membrane separates easily.

1631. The process requires a great deal of patience, as ample time must be given for the vegetable tissues to decay, and separate.

1632. *A more Expeditious Method.*—A tablespoonful of chlorid of lime in a liquid state, mixed with a quart of pure spring water.

1633. Leaves or seed-vessels of plants to be soaked in the mixture for about four hours, then taken out and well washed in a large basin filled with water, after which they should be left to dry with free exposure to light and air.

1634. Some of the largest species of forest leaves, or such as have strong ribs, will require to be left rather more than four hours in the liquid.

1635. *Dwarf Plants.*—Take a cutting of the plant you wish to dwarf, say a myrtle, for instance, and having set it in a pot, wait until you are satisfied that it has taken root; then take a cutting from it, and place it in a miniature flower-pot, taking care to fill it more than three parts with fine sand, the remainder with mould.

1636. Put it under a glass on the chimney-piece, or in any warm place, and give it very small quantities of water.

1637. *Preserve Fungi.*—Receipt of the celebrated botanist, William Withering, Esq., by which specimens of fungi may be beautifully preserved.

1638. Take two ounces of sulphate of copper, or blue vitriol, and reduce it to powder, and pour upon it a pint of boiling water, and when cold, add half a pint of spirits of wine; cork it well, and call it "the pickle."

1639. To eight pints of water add one pint and a-half of spirits of wine, and call it "the liquor."

1640. Be provided with a a number of wide-mouthed bottles of different sizes, all well fitted with corks. The fungi should be left on the table as long as possible to allow the moisture to evaporate.

1641. They should then be placed in the pickle for three hours, or longer, if necessary; then place them in the bottles intended for their reception, and fill with the liquor.

1642. They should then be well corked and sealed, and arranged in order with their names in front of the bottles.

1643. *Leaf Impressions.*—Hold oiled paper in the smoke of a lamp, or of pitch, until it becomes coated with the smoke; to this paper apply the leaf of which you wish an impression, having previously warmed it between your hands, that it may be pliable.

1644. Place the lower surface of the leaf upon the blackened surface of the oil paper, that the numerous veins that are so

prominent on this side may receive from the paper a portion of the smoke.

1645. Lay a paper over the leaf, and then press it gently upon the smoked paper, with the fingers, or with a small roller, (covered with woolen cloth, or some like soft material), so that every part of the leaf may come in contact with the sooted oil-paper.

1646. A coating of the smoke will adhere to the leaf.

1647. Then remove the leaf carefully, and place the blackened surface on a sheet of white paper, not ruled, or in a book prepared for the purpose, covering the leaf with a clean slip of paper, and pressing upon it with the fingers, or roller, as before.

1648. Thus may be obtained the impression of a leaf, showing the perfect outlines, together with an accurate exhibition of the veins which extend in every direction through it, more correctly than the finest drawing.

1649. This process is so simple, and the material so easily obtained, that any person, with a little practice to enable him to apply the right quantity of smoke to the oil-paper, and give the leaf a proper pressure, can prepare beautiful leaf impressions, such as a naturalist would be proud to possess.

1650. There is another, and we think, a better method of taking *leaf impressions* than the preceding one.

1651. *Leaf Impressions in Ink.*—After warming the leaf between the hands, apply printing ink, by means of a small leather ball containing cotton, or some soft substance, or with the end of the finger.

1652. The leather ball (and the finger when used for that purpose), after the ink is applied to it, should be pressed several times on a piece of leather, or some smooth surface, before each application to the leaf, that the ink may be smoothly and evenly applied.

1653. After the under surface of the leaf has been sufficiently inked, apply it to the paper, where you wish the impression; and after covering it with a slip of paper, use the hand or roller to press upon it, as described in the former process. (See 711, page 176.)

1654. *Impressions from Coins.*—Melt a little isinglass glue with brandy, and pour it thinly over the medal, &c., so as to cover its whole surface; let it remain on for a day or two, till it has thoroughly dried and hardened, and then take it off, when it will be fine, clear, and as hard as a piece of Muscovy glass, and will have a very elegant impression of the coin. It will also resist the effects of damp air, which occasions all other kinds of glue to soften and bend, if not prepared in this way.

TRANSFERRING TO GLASS, WOOD, ETC.

1655. The process of transferring consists in causing the ink of a print, engraving, mezzotint, or lithograph, to adhere to the surface of glass, wood, cardboard, ivory, or earthenware, which is effected by cementing the face of the prints to their surface by means of some varnish or glutinous transparent body that will not dissolve in water, and then destroying the texture of the paper, so as to leave the ink upon the varnish and material operated on, in the same manner as if the original impression had been there, but of course reversed.

1656. *Materials.*—The body to which the print is to be transferred.

1657. Spirits and oil of turpentine; oil and varnish colors; seed-lac, white and transfer varnishes; oil of almonds; spirit of wine; a flat and a round brush, and a towel

The Varnishes.—The *seed-lac* and *white varnishes.*

1658. *The Transfer Varnish.*—Take five ounces of the best spirit of wine, add four ounces of the purified Venice turpentine to it, and an ounce of picked mastic tears; put them into a bottle, shake constantly until the mastic and turpentine dissolve, and in a few hours it will be fit for use, but improves by keeping.

1659. *To Transfer to Glass.*—Procure a piece of the best crown-glass, as near as possible in size and shape to the print to be transferred, varnish it over with a mixture of equal parts of spirits and oil of turpentine, and lay the print on the glass, beginning at one end, and pressing it gently down with a towel in every part in proceeding to the other.

1660. If this is not done carefully, vesicles of air will be admitted between the paper and glass, and mar the effect. After pressing the print down with the towel, it is to be set aside to dry, which will take some time, varying according to the state of the atmosphere.

1661. When the turpentine has become perfectly hard, the paper must be moistened with water till it is thoroughly saturated, and the paper entirely removed by rubbing very gently with the forefinger in a circular direction, and then set aside to dry, when the impression will be found perfectly transferred, but reversed.

1662. If it is wished to preserve only the appearance of an engraving, a sheet of white paper or Bristol-board must be placed behind the glass; but if required to be colored, the operation must be completed with oil or varnish colors, in such a manner as may impart to it the semblance of a painting.

1663. *To Transfer to Wood.*—Procure a piece of wood of the required form and size; if flat, it should be newly planed, and rubbed down with pumice-stone and fine sand-paper to make it perfectly smooth and free from grease; if rounded or any other shape, it should be scraped with a piece of glass, then pumiced and sand-papered.

1664. Give the wood a coat of transfer varnish previous to transferring, and set aside for twenty-four hours to dry.

1665. This promotes adhesion of the print to the wood, and secures the latter from being soiled.

1666. Cut off the white margin of the print, then damp it by placing it face upward on the surface of some water in a shallow vessel, taking care to keep the face or printed side

dry; when properly soaked, pass a sponge over the back, spread a coat of varnish over the whole of the face, and apply immediately to the wood.

1667. Rub down the whole gently with a towel, in the same manner as directed for glass, so that it may adhere properly. When this has been done, and while the back is yet moist, rub it carefully with the forefinger until half the thickness of the paper is removed, then leave it to dry.

1668. Then wet the finger only, and keep rubbing until the remainder of the paper is removed, and there is a thin white film over all, allowing the print to appear clean through; then let it dry, and bring out with a little oil of almonds; after which apply a coat of carriage-varnish, or the seed-lac and animi varnish used for white japan grounds, though we prefer the transfer-varnish ourselves.

1669. Great care and patience must be exercised during the process of rubbing off, to avoid scratching or tearing the print; if, however, any part is destroyed, it must be repaired with the same color.

1670. In this manner plain or colored prints may be transferred from paper to wood.

1671. When colored prints are transferred, they should be laid on vinegar and water (two-thirds of the former and one of the latter), to destroy the size which is in the paper, and remain twice as long as plain prints; then removed and placed between blotting-paper, and when the superfluous moisture has been removed, treated the same as the other prints.

1672. *To Clean the Brushes* and your hands after using the varnishes, rub with spirit of wine.

1673. *To Transfer to Ivory.*—Rub well with pumice-stone, and then transfer in the same manner as directed above.

1674. *To Transfer to Card-board.*—Remove the sizing on the surface by immersing in the vinegar and water mentioned above, then transfer as usual.

1675. *To Transfer to Earthenware.*—Give the article a thin coating of varnish, then transfer as directed above.

1676. *Etching on Glass.*—Mix in a gallipot a little sulphuric acid and lampblack to a thin smooth paste, and spread a layer of it on a piece of glass; upon which trace with a sharp-pointed instrument, (penetrating to the glass,) any design which may suggest itself.

1677. Then dissolve a little fluor-spar, coarsely powdered, in spirit of turpentine, and with a camel's-hair brush lay some of the solution upon the parts so traced; let it remain an hour or two; and you will find, on scraping off the paste, that the glass will be etched with whatever forms you have traced.

1678. Very pleasing drawings may thus be etched upon glass; and they may be rendered more effective by dusting the outline with a little vermilion.

EMBLEMATIC STONES.

1679. *The Jewels of the Months.*—In Poland, according to a superstitious belief, each month of the year is under the influence of some precious stone, which influence is attached to the destiny of persons born during the course of the month.

1680. It is, in consequence, customary amongst friends, and more particularly between lovers, to make, on birthdays, reciprocal presents, consisting of some jewel ornamented with the tutelar stone. It is generally believed that this prediction of happiness, or rather of the future destiny, will be realized according to the wishes expressed on the occasion.

1681. *January.*—The stone of January is the Jacinth, or Garnet, which denotes constancy and fidelity in any sort of engagement.

1682. *February.*—The Amethyst, a preservative against violent passions, and an assurance of peace of mind and sincerity.

1683. *March.*—The Bloodstone is the stone of courage and wisdom in perilous undertakings, and firmness in affection.

1684. *April.*—The Sapphire, or Diamond, is the stone of repentance, innocence, and kindliness of disposition.

1685. *May.*—The Emerald. This stone signifies happiness in love, and domestic felicity.

1686. *June.*—The Agate is the stone of long life, health, and prosperity.

1687. *July.*—The Ruby, or Cornelian, denotes forgetfulness of, and exemption from, the vexations caused by friendship and love.

1688. *August.*—The Sardonyx. This stone denotes conjugal felicity.

1689. *September.*—The Chrysolite is the stone which preserves and cures madness and despair.

1690. *October.*—The Aqua-Marine, or Opal, signifies distress and hope.

1691. *November.*—The Topaz signifies fidelity and friendshp.

1692. *December.*—The Turquoise is the stone which expresses great sureness and prosperity in love, and in all the circumstances of life.

STAINING.

1693. *General Observations.*—When *alabaster*, *marble*, and other *stones*, are colored, and the stain is required to be deep, it should be poured on boiling-hot, and brushed equally over every part if made with water; if with spirit, it should be applied cold, otherwise the evaporation, being too rapid, would leave the coloring matter on the surface, without any, or very little, being able to penetrate.

1694. In grayish or brownish stones, the stain will be wanting in brightness, because the natural color combines with the stain; therefore, if the stone be of a pure color, the result will be a combination of the color and stain.

1695. *Bone or Ivory.*—In staining bone or ivory, the colors will take better before than after polishing; and if any dark spots appear, they should be rubbed with chalk, and the article dyed again to produce uniformity of shade. On removal from the boiling-hot dye-bath, the bone should be immediately plunged into cold water, to prevent cracks from the heat.

1696. *Paper or Parchment* is stained; a broad varnish brush should be employed to lay the coloring on evenly.

1697. *Wood.*—When the stains for wood are required to be very strong, it is better to soak and *not* brush them; therefore if for inlaying or fine work, the wood should be previously split or sawn into proper thicknesses, and when directed to be brushed several times over with the stains, it should be allowed to dry between each coating.

1698. *To Varnish.*—When it is wished to render any of the stains more durable and beautiful, the work should be well rubbed with Dutch or common rushes after it is colored, and then varnished with seed-lac varnish, or if a better appearance is desired, with three coats of the same, or shellac varnish.

1699. *Common Work* only requires frequent rubbing with linseed oil and woolen rags. The remainder, with the exception of *glass*, will be treated of in this paper.

1700. *Alabaster, Marble and Stone*, may be stained of a yellow, red, green, blue, purple, black, or any of the compound colors, by the stains used for wood.

1701. *Bone and Ivory.—Black.*—Lay the articles for several hours in a strong solution of nitrate of silver, and expose to the light.

1702. Boil the article for some time in a strained decoction of logwood, and then steep it in a solution of per-sulphate or acetate of iron.

1703. Immerse frequently in ink, until of sufficient depth of color.

1704. *Blue.*—1. Immerse for some time in a dilute solution of sulphate of indigo—partly saturated with potash—and it will be fully stained. 2. Steep in a strong solution of sulphate of copper.

1705. *Green.*—1. Dip blue-stained articles for a short time in nitro-hydrochlorate of tin, and then in a hot decoction of fustic. 2. Boil in a solution of verdigris in vinegar until the desired color is obtained.

1706. *Red.*—Dip the articles first in the tin mordant used in dyeing, and then plunge into a hot decoction of Brazil wood—half a pound to a gallon of water—or cochineal.

1707. Steep in red ink until sufficiently stained.

1708. *Scarlet.*—Use lac-dye instead of the preceding.

1709. *Violet.*—Dip in the tin mordant, and then immerse in a decoction of logwood.

1710. *Yellow.*—Impregnate with nitro-hydrochlorate of tin, and then digest with heat in a strained decoction of fustic.

1711. *Second.*—Steep for twenty-four hours in a strong solution of the neutral chromate of potash, and then plunge for some time in a boiling solution of acetate of lead.

1712. *Third.*—Boil the articles in a solution of alum—a pound to half a gallon—and then immerse for half an hour in the following mixture.

1713. Take half a pound of turmeric, and a quarter of a pound of pearlash; boil in a gallon of water. When taken from this, the bone must be again dipped in the alum solution.

1714. *Horn* must be treated in the same manner as bone and ivory for the various colors given under that heading.

1715. *In Imitation of Tortoise-Shell.*—First steam and then press the horn into proper shapes, and afterward lay the following mixture on with a small brush, in imitation of the mottle of tortoise-shell.

1716. *Second.*—Take equal parts of quick lime and litharge, and mix with strong soap-lees; let this remain until it is thoroughly dry, brush off, and repeat two or three times, if necessary.

1717. Such parts as are required to be of a reddish brown, should be covered with a mixture of whiting and the stain.

1718. *Iron.—Black, for Ship's Guns, Shot, etc.*—To one gallon of vinegar add a quarter of a pound of iron-rust, let it stand for a week; then add a pound of dry lamp-black, and three-quarters of a pound of copperas; stir it up for a couple of days.

1719. Lay five or six coats on the gun, &c., with a sponge, allowing it to dry well between each. Polish with linseed oil and soft woolen rag, and it will look like ebony.

1720. *Paper and Parchment.—Blue.*—Stain it green with the verdigris stain given below, and brush over with a solution of pearlash—two ounces to the pint—till it becomes blue.

1721. Use the blue stain for wood.

1722. *Green and Red.*—The same as for wood. (See 717, page 178.)

1723. *Orange.*—Brush over with a tincture of turmeric, formed by infusing an ounce of the root in a pint of spirits of wine; let this dry, and give another coat of pearlash solution, made by dissolving two ounces of the salt in a quart of water.

1724. *Purple.*—Brush over with the expressed juice of ripe privet berries. The same as for wood.

1725. *Yellow.*—Brush over with tincture of turmeric

1726. Add anatto or dragon's blood to the tincture of turmeric, and brush over as usual. (See 716, page 178.)

1727. *Wood.—Black.*—Drop a little sulphuric acid into

a small quantity of water, brush over the wood and hold it to the fire; it will be a fine black, and receive a good polish.

1728. *Second.*—Take half a gallon of vinegar, an ounce of bruised nut-galls, of logwood chips and copperas each half a pound—boil well; add half an ounce of the tincture of sesquichlorid of iron, formerly called the muriated tincture, and brush on hot.

1729. *Third.*—Use the stain given for ships' guns.

1730. *Fourth.*—Take half a gallon of vinegar, half a pound of dry lamp-black, and three pounds of iron rust sifted. Mix, and let stand for a week. Lay three coats of this on hot, and then rub with linseed oil, and you will have a fine deep black.

1731. *Fifth.*—Add to the above stain an ounce of nut-galls, half a pound of logwood chips, and a quarter of a pound of copperas; lay on three coats, oil well, and you will have a black stain that will stand any kind of weather, and one that is well suited for ships' combings, &c.

1732. *Sixth.*—Take a pound of logwood chips, a quarter of a pound of Brazil wood, and boil for an hour and a half in a gallon of water. Brush the wood several times with this decoction while hot. Make a decoction of nut-galls by simmering gently for three or four days a quarter of a pound of the galls in two quarts of water; give the wood three coats of this, and while wet lay on a solution of sulphate of iron (two ounces to a quart), and when dry oil or varnish.

1733. *Seventh.*—Give three coats with a solution of copper filings in aquafortis, and repeatedly brush over with the logwood decoction, until the greenness of the copper is destroyed.

1734. *Eighth.*—Boil half a pound of logwood chips in two quarts of water, add an ounce of pearlash, and apply hot with a brush. Then take two quarts of the logwood decoction, and half an ounce of verdigris, and the same of copperas; strain and throw in half a pound of iron rust. Brush the work well with this, and oil.

1735. *Blue.*—Dissolve copper filings in aquafortis, brush the wood with it, and then go over the work with a hot solution of pearlash (two ounces to a pint of water), till it assumes a perfectly blue color.

1736. Boil a pound of indigo, two pounds of woad, and three ounces of alum in a gallon of water; brush well over until thoroughly stained.

1737. *Green.*—Dissolve verdigris in vinegar, and brush over with the hot solution until of a proper color.

1738. *Mahogany Color.—Dark.*—1. Boil half a pound of madder and two ounces of logwood chips in a gallon of water, and brush well over while hot; when dry, go over the whole with pearlash solution, two drachms to the quart.

1739. *Second.*—Put two ounces of dragon's blood, bruised, into a quart of oil of turpentine; let the bottle stand in a warm place, shake frequently, and, when dissolved, steep the work in the mixture.

1740. *Light Red Brown.*—Boil half a pound of madder and a quarter of a pound of fustic in a gallon of water; brush over the work when boiling-hot, until properly stained.

1741. *Second.*—The surface of the work being quite smooth, brush over with a weak solution of aquafortis, half an ounce to the pint, and then finish with the following:—Put four ounces and a half of dragon's blood and an ounce of soda, both well bruised, to three pints of spirit of wine; let it stand in a warm place, shake frequently, strain, and lay it on with a soft brush, repeating until of a proper color; polish with linseed oil or varnish.

1742. *Purple.*—Brush the work several times with the logwood decoction used for No. 6 *Black*, and when dry give a coat of pearlash solution, one drachm to a quart, taking care to lay it on evenly.

1743. *Red.*—1. Boil a pound of Brazil wood and an ounce of pearlash in a gallon of water, and while hot brush over the

work until of a proper color. Dissolve two ounces of alum in a quart of water, and brush the solution over the work before it dries.

1744. *Second.*—Take a gallon of the above stain, add two more ounces of pearlash; use hot, and brush often with the alum solution.

1745. *Third.*—Use a cold infusion of archil, and brush over with the pearlash solution used for No. 1 *dark mahogany.*

1746. *In imitation of Rosewood.*—1. Boil half a pound of logwood in three pints of water till it is of a very dark red, add half an ounce of salt of tartar; stain the work with the liquor while boiling hot, giving three coats; then with a painter's graining-brush form streaks with No. 8 *black stain;* let dry, and varnish.

1747. *Second.*—Brush over with the logwood decoction used for No. 6 *black,* three or four times; put half a pound of iron filings into two quarts of vinegar; then with a graining-brush or cane, bruised at the end, apply the iron filing solution in the form required, and polish with beeswax and turpentine when dry, or varnish.

ORNAMENTED LEATHER WORK.

1748. An excellent imitation of carved oak, suitable for frames, boxes, vases, and ornaments in endless variety, may be made of a description of leather called Basil.

1749. The art consists in simply cutting out this material in imitation of natural objects, and in impressing upon it by simple tools, either with or without the aid of heat, such marks and characteristics as are necessary to the imitation.

1750. The rules given with regard to the imitation of leaves and flowers (1887) apply to Ornamental Leather Work.

1751. Begin with a simple object, and proceed by degrees to those that are more complicated.

1752. The tools required are ivory or steel points of various sizes, punches, and tin shapes, such as are used for confectionary. The points may be made out of the handles of old tooth-brushes.

1753. Before cutting out the leaves, the leather should be well soaked in water, until it is quite pliable. When dry, it will retain the artistic shape.

1754. Cut out an ivy or an oak leaf, and impress the veins upon it; then arrange these in groups, and affix them to frames, or otherwise.

1755. Leaves and stems are fastened together by means of liquid glue, and varnished with any of the drying varnishes, or with sealing-wax dissolved to a suitable consistency in spirits of wine.

1756. Wire, cork, gutta-percha, bits or stems of trees, &c., may severally be used to aid in the formation of groups of buds, flowers, seed-vessels, &c.

DYEING.

(SEE PAGES 74, 75, 76.)

1757. *Dye Hair and Feathers Green.*—Take of verdigris or verditer, of each one ounce: gum water, one pint; mix them well, and dip the hair or feathers into the mixture, shaking them well about.

1759. *Cleansing Feathers of their Animal Oil.*—The following receipt gained a premium from the Society of Arts:

1760. Take for every gallon of clean water one pound of quicklime, mix them well together, and when the undissolved lime is precipitated in fine powder, pour off the clean lime-water for use.

1761. Put the feathers to be cleaned in another tub, and add to them a quantity of the clean lime-water, sufficient to cover them about three inches, when well immersed and stirred about therein.

1762. The feathers, when thoroughly moistened, will sink down, and should remain in the lime-water three or four days; after which the foul liquor should be separated from them, by laying them in a sieve.

1763. The feathers should be afterward well washed in clean water, and dried upon nets, the meshes of which may be about the fineness of cabbage-nets.

1764. The feathers must be, from time to time, shaken on the nets, and as they get dry will fall through the meshes, and are to be collected for use. The admission of air will be serviceable in drying.

1765. The process will be completed in three weeks; and after being thus prepared, the feathers will only require to be beaten to get rid of the dust.

1766. *Dyeing Eggs.*—Wrap the egg in *crimson silk ribbon* (taking care that no part is uncovered), tack it on and boil it five minutes, and when it is divested of the ribbon the shell will be of a pretty mottled red; any colored ribbon may be used with a very pretty effect.

1767. *Crystallization upon Cinders.*—Saturate water, kept boiling, with alum; then set the solution in a cool place, suspending a cinder in it, by a hair or fine silk thread; as the solution cools, a beautiful crystallization will take place upon the cinder, which will resemble a specimen of mineralogical spar.

1768. *Staining Grasses and Mosses.*—Take some common powder-blue, mix with water, rather thin; take dry moss and dip it in, and let it soak a few minutes, take out and squeeze it—you will have a blue moss. Take *light* chrome yellow (as there are two sorts), mix with water, as before: with the same process you will have a yellow moss. Take some of the blue and some of the yellow, mix with water, as before, and you will

have a green moss. You may have a variety of shades by adding or diminishing the yellow.

THE GAME OF DRAUGHTS.

1769. *Rules of the Game.*—The nine laws for regulating the game of draughts are as follows.

1770. Each player takes the first move alternately, whether the last game be won or drawn.

1771. Any action which prevents the adversary from having a full view of the men is not allowed.

1772. The player who touches a man must play him.

1773. In case of standing the huff ten minutes, the other may call upon him to play; and if, after that, he delay above five minutes longer, then he loses the game.

1775. In the losing game, the player can insist upon his adversary taking all the men, in case opportunities should present themselves for their being so taken.

1776. To prevent unnecessary delay, if one color have no pieces, but two kings on the board, and the other no piece but one king, the latter can call upon the former to win the game in twenty moves; if he does not finish it within that number of moves, the game to be relinquished as drawn.

1777. If there are three kings to two on the board, the subsequent moves are not to exceed forty.

LAWS OF CHESS.

1778. The rules given below are based upon the code published in "*Walker's Art of Chess Play.*" The word *piece* frequently includes the *pawn.*

1779. If the board or pieces be improperly placed, or are deficient in number (except in the case of odds), the game

must be recommenced, if the error is discovered before the fourth move on each side (the eighth move of the game.) If not discovered before this stage, the game must proceed.

1780. If the player gives odds, and yet omits to remove the odds from the board at the commencement, he may recommence the game, and remove the odds given, provided he discover his error before playing his fourth move.

1781. But if he has made his fourth move, the game must be played out; and should the player who agreed to give the odds win the game, it shall nevertheless be considered drawn.

1782. When parties play even, they draw lots for the first move of the first game. The first move is afterward taken alternately throughout the sitting, except when a game is drawn, when he who had the first move in that game still claims it, a drawn game being of no account.

1783. He who gains the move has also the choice of color. Each player uses the same color throughout the sitting. When a match is made for a given number of games, the move passes alternately throughout the match. A player giving odds has the choice of men, and takes the move in every game, unless agreed to the contrary.

1784. A player who gives the odds of a piece, may give it each game from the king's or queen's side, at his option. If he gives the odds of a pawn, he must give the king's bishop's pawn, unless otherwise stipulated.

1785. The player who receives the odds of a certain number of moves at the commencement, must not with those moves cross from his own half of the board.

1786. If a player, in his turn to play, touch one of his men, he must move that piece, if it can legally move, unless, when he first touches it, he says aloud, "*J'adoube.*" No penalty is attached to touching a piece, unless it is your turn to move.

1787. If the player touch his king, with the intention of moving him, and then finds that he cannot do so without

placing the king in check, no penalty can be inflicted on his replacing his king and moving elsewhere.

1788. [Otherwise ?] If the player should touch a man which cannot be moved without placing his king in check, he must move his king instead.

1789. If a player about to move touch one of his adversary's men, without saying "*J'adoube*" when he first touches it, he must take that piece, if it can be lawfully taken.

1790. Should it not be taken, he must, as a penalty, move his king; but should the king be unable to play without going into check, no penalty can be enforced. It is not allowed to castle upon a compulsory move of the king.

1791. While you hold your piece you may move it anywhere allowed by the rules; but when you quit your hold the move is completed, and must be abided by.

1792. If you inadvertently move one of your adversary's pieces instead of your own, he may compel you to take the piece you have touched, should it be *en prise;* or to replace it and move your king, or to leave it on the square to which you have moved it, and forego any other move at that time.

1793. Should you capture one of the adverse pieces with another, instead of one of your own, the capture holds good, if your opponent so decides.

1794. If the player takes a piece through a false move, his adversary may compel him to take such piece with one that can lawfully take it, or to move the piece that has been touched, if such move does not expose the king to check, or he may be directed to move his king.

1795. If you take one of your own men, instead of one of your adversary's, you may be compelled to move one of the two pieces touched, at the option of your opponent.

1796. Mr. Walker thinks that the penalty should be to lose the man you have improperly taken off.

1797. An opponent has the option of punishing a false move, by claiming the false move as your move, by compelling you to move the piece touched, as you may think fit, or to replace the piece and move your king.

1798. The king must never be exposed to check by any penalty enforced.

1799. If you move twice running, you may be compelled to abide by both moves, or to retract the second.

1800. Unlimited time is allowed for the moves [unless otherwise agreed.] If one player insists upon the postponement of the termination of a game, against the will of his opponent, the game is forfeited by him who will not play on.

1801. When a pawn is moved two squares, it is liable to be taken, *en passant*, by a pawn, but not by a piece.

1802. If you touch both king and rook, intending to castle, you must move one of the two pieces, at the option of your adversary; or he may compel you to complete the castling.

1803. You cannot take a piece and castle at the same time; nor does the rook check as it passes to its new position; but it may check on its position after castling.

1804. False castling is liable to the same penalties as a false move.

1805. When a player gives the odds of a rook, he does not relinquish the right of castling on the side from which the rook has been taken, all other conditions being lawful, as if the rook were in its place.

1806. When you give check you must say so aloud.

1807. If check is not called on either side, but subsequently discovered, you must endeavor to recall all the moves back to the period when the check first occurred.

1808. You are not compelled to cry check when you attack the queen.

1809. If you cry check, and afterward alter your determination, you are not compelled to abide by the intention, provided you have not touched the piece.

1810. When a pawn reaches the opposite side of the board it may be replaced by any piece, at the option of the owner, and irrespective of the pieces already owned by him.

1811. Stall-mate is a drawn game.

1812. Drawn games count for nothing; and he who moved first in the drawn game moves first in the following.

1813. If you declare to win a game, or position, and only draw it, you are accounted the loser.

1814. When you have either of the following advantages of force, you are compelled to give check-mate in fifty moves, or the game is considered drawn:

1815. King and queen against king.
King and rook against king.
King and two bishops against king.
King, bishop, and knight, against king.
King and queen against king and rook.
King and rook against king and minor piece.
King and pawn against king.
King and two pawns against king and pawn.

1816. If you move after your adversary has made a false move, or committed other irregularity, you cannot claim the penalties.

1817. Spectators are forbidden to make remarks.

1818. Disputes to be referred to a third party.

EVENING PASTIME.

1819. Among the innocent recreations of the fireside, there are few more commendable and practicable than those afforded

by what are severally termed Anagrams, Charades, Conundrums, Enigmas, Puzzles, Rebuses, Riddles, Transpositions, &c.

1820. Of these there are such a variety, that they are suited to every capacity; and they present this additional attraction, that ingenuity may be exercised in the *invention* of them, as well as in their solution.

1821. Many persons who have become noted for their literary compositions may date the origin of their success to the time when they attempted the composition of a trifling enigma or charade.

1822. *Anagrams* are formed by the transposition of the letters of words or sentences, or names of persons, so as to produce a word, sentence, or verse of pertinent, or of widely different meaning.

1823. They are very difficult to discover, but are exceedingly striking when good. The following are some of the most remarkable.

1824. *Transposed Forms*—Astronomers—No more stars; Catalogues—Got as a clue; Elegant—Neat leg; Impatient—Tim in a pet; Immediately—I met my Delia; Masquerade—Queen as mad; Parishioners—I hire parsons; Parliament—Partial men; Penitentiary—Nay I repent; Presbyterians—Best in prayer; Sweetheart—There we sat; Telegraphs—Great helps.

1825. *Conundrums.*—These are simple catches, in which the sense is playfully cheated, and are generally founded upon words capable of double meaning. The following are examples.

1826. If a person were looking at a conflagration by the names of what three great British writers, could he express his emotions?

1827. *Dickens, How-itt Burns!*

1828. The name of what class of persons, in Rome, might a bear be supposed to say when he was licking his paws after having eaten a little girl?

1829. *Gladiator—Glad I ate her.*

1830. Who first introduced salt provisions into the navy?
1831. *Noah, when he took Ham into the ark.*

1832. Why need a person never be hungry in the desert?
1833. *Because of the sand which is there.—Sandwiches!*

1834. Why is a clock the most modest thing in the world?
1835. *Because it always keeps its hands before its face, and no matter how good its works are, it will run itself down.*

PART IX.

WORK IN DOORS AND OUT.

Home Comforts—Household Receipts—Wise Economy—Fuel—Things to Know—Cleanliness—Accidents—Agriculture—Gardening—Etc., Etc.

HOUSEHOLD MAXIMS.

1836. A short needle makes the most expedition in plain sewing.

1837. When you are particular in wishing to have precisely what you want from a butcher's, go and purchase it yourself.

1838. One flannel petticoat will wear nearly as long as two, if turned behind-part before, when the front begins to wear thin.

1839. People in general are not aware how very essential to the health of their inmates is the free admission of light into their houses.

1840. A leather strap, with a buckle to fasten, is much more commodious than a cord for a box in general use for short distances; cording and uncording is a disagreeable job.

1841. There is not any real economy in purchasing cheap cottons for gentlemen's night shirts. The cloth cuts in holes, and soon becomes bad colored in washing.

1842. Sitting to sew by candle-light by a table with a dark cloth on it is injurious to the eye-sight. When no other remedy presents itself, put a sheet of white paper before you.

1843. People very commonly complain of indigestion: how can it be wondered at, when they seem by their habit of swallowing their food wholesale, to forget for what purpose they are provided with teeth.

1844. Eat slowly and you will not over-eat.

1845. Keeping the feet warm will prevent headaches.

1846. Late at breakfast—hurried for dinner—cross at tea.

1847. Between husband and wife little attentions beget much love.

1848. Always lay your table neatly, whether you have company or not.

1849. Put your balls or reels of cotton into little bags, leaving the ends out.

1850. Whatever you may choose to give away, always be sure to *keep your temper*.

1851. Feather beds should be opened every third year, the ticking well dusted, soaped and waxed, the feathers dressed and returned.

1852. *Bed-rooms* heated are pernicious to health.

1853. *Beds*, instead of being made up as soon as people rise out of them, ought to be turned down, and exposed to the fresh air from the open windows through the day.

1854. *Feather beds*, especially in youth and in warm weather,

enervate the system, destroying its vigor and health. Neither should beds be too hard. Sleeping with the head under the clothes is pernicious; so, also, confined air caused by curtains.

1855. *The floor* is the unhealthiest part of a room, from the tendency of impure air to descend.

1856. *Charcoal*, when burning, should have an uncovered vessel of boiling water over it, the vapor of which will counteract the deleterious fumes.

1857. *Powdered charcoal* will remove smells, impurities, &c., from old glass vessels, after the grosser parts have been scoured off with sand and potash.

1858. *A perfume* for linen, &c., is made of rose leaves dried in the shade, mixed with powdered cloves, scraped mace, and put in little bags.

1859. Persons of defective sight, when threading a needle, should hold it over something white, by which the sight will be assisted.

1860. In mending sheets and shirts, put the pieces sufficiently large, or in the first washing the thin parts give way, and the work is all undone.

1861. Reading by candle-light, place the candle behind you, that the rays may pass over your shoulder on to the book. This will relieve the eyes.

1862. A wire fire-guard, for each fire-place in a house, costs little, and greatly diminishes the risk to life and property. Fix them before going to bed.

1863. In winter, get the work forward by daylight, to prevent running about at night with candles. Thus you escape grease spots and risks of fire.

1864. Matches, out of the reach of children, should be kept in every bedroom. They are cheap enough.

1865. Apple and suet dumplings are lighter when boiled in a net than a cloth. Scum the pot well.

1866. When chamber towels get thin in the middle, cut them in two, sew the selvages together, and hem the sides.

1867. When you dry salt for the table, do not place it in the salt-cells until it is cold, otherwise it will harden into a lump.

1868. Never put away plate, knives and forks, &c., uncleaned, or sad inconvenience will arise when the articles are wanted.

1869. After washing, overlook linen, and stitch on buttons, hooks and eyes, &c.; for this purpose, keep a "housewife's friend," full of miscellaneous threads, cottons, buttons, hooks, &c.

1870. For ventilation, open your windows both at top and bottom. The fresh air rushes in one way, while the foul makes its exit the other. This is letting in your friend and expelling your enemy.

1871. Never allow your servants to put wiped knives on your table; for, generally speaking, you may see that they have been wiped with a dirty cloth.

1872. There is not any thing gained in economy by having very young and inexperienced servants at low wages.

1873. Dirty windows speak to the passer-by of the negligence of the inmates.

1874. *Carpets.*—If the corner of a carpet gets loose and prevents the door opening, or trips every one up that enters the room, nail it down at once. A dog's-eared carpet marks the sloven as well as the dog's-eared book.

1875. *Cravats* or stocks should not be worn so tight as to compress the many large blood-vessels of the neck, which connect with the brain.

1876. *Impure air* of theatres, ball-rooms, and other crowded and badly-ventilated buildings and sleeping-rooms, is poison to the lungs.

1877. *Eye-sight* is best preserved by a moderate light—too little, strains—too much, dazzles and injures. Bathing in cold water is of service

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1878. *Consumption.*—Remedies.—Vigorous, daily, but not violent, exercise, and free exposure to the air, are important. As the great difficulty in medicine is in reaching the seat of this disease, frequently inhaling certain fumes may be a means of healing the lungs. Sitting and sleeping in a room through which the fumes of resin, turpentine, or other similar gums are moderately diffused, may be of service.

1879. *Small Pox* is prevented by vaccination, if well done. Never neglect vaccination.

1880. *Water* is purified by—1, filtration through gravel, sand, or soft porous stone and charcoal. Or, 2, it may be sweetened and improved by charcoal, coarsely pulverized and thrown into a vessel of water. 3, by boiling and distillation. Water is greatly improved in wells or pumps that are frequently used.

1881. *Distilled Water*, after being exposed to the air, is the most salubrious of all drinks, and its daily use is of the greatest importance in dyspepsia and similar diseases.

1882. *Wet Clothes* should not be worn near a fire, or so as to occasion sudden heat. Keep in motion till dry can be had, then change at once, and give the feet a long heating.

1883. *Black Silks* wash in warm small beer and milk.

HOUSEHOLD RECEIPTS FOR MANY THINGS.

1884. *To Extract Grease from Clothes.*—Scrape off all the grease that you can with a knife; then lay over the spot a thick brown paper, and press it with a warm iron; if the

grease comes through the paper, take another piece, and so on until it does not soil the paper.

1885. If not all out, wrap a bit of cloth or flannel round the finger, dip it in spirits of wine, and rub the grease spot; this will take it out. Be careful not to have the iron too hot. Try it on white paper; if it scorches this, it is too hot.

1886. *To Extract Paint from Woolen.*—Rub the spot with a piece of flannel saturated with turpentine, or spirit of wine.

1887. *To Preserve Hats.*—Brush them always with a soft brush. Keep them in a hat box if not in constant use, as air and dust soon turn them brown. Have a stick for each hat.

1888.—*Hats when wet* should be handled lightly, wiped dry with a cloth or silk handkerchief, and brushed. If the fur sticks, dampen it with a sponge dipped in vinegar, and brush it dry.

1889. *When heated by exercise* avoid drinking cold water. Rinse the mouth with cold water before drinking.

1890. *To Procure Sleep.*—On going to bed take a warm or cold bath.

1891. *Another Way.*—Rub the body well with rough towels or the flesh-brush for a quarter of an hour.

1892. *To Relieve Headache in Bed.*—Wash the head in cold water, and lay aside the night-cap, but see that the feet are kept warm.

1893. *The air bath* is very healthful. Children especially should resort to this method of enjoying the salubrious influence of the atmosphere.

1894. *Dr. Franklin's* plan was to rise at day-break, and pass half an hour in his chamber undressed, reading or writing.

1895. *Close Closets* that have become infested with moths

should be well rubbed with a strong decoction of tobacco, and repeatedly sprinkled with spirits of camphor.

1896. *The Sting of a Nettle* may be cured by rubbing the part with rosemary, mint, or sage leaves.

1897. *Charcoal Fumes.*—The usual remedies for persons overcome with the fumes of charcoal in a close apartment are, to throw cold water on the head and to bleed immediately; also apply mustard or hartshorne to the soles of the feet.

1898. *An Ever-Dirty Hearth*, and a grate always choked with cinders and ashes, are infallible evidences of bad housekeeping.

1899. *Effects of Charcoal*, in stopping putrefaction, are now well ascertained; fish or meat may be restored by boiling charcoal with them.

1900. *Moths—to get rid of them.*—Procure shavings of cedar-wood, and enclose in muslin bags, which should be distributed freely among the clothes.

1901. *Second.*—Sprinkle pimento (allspice) berries among the clothes. Sprinkle the clothes with the seeds of the musk plant.

1902. *To Destroy the Eggs.*—When deposited in woolen cloth, &c., use a solution of acetate of potash in spirits of rosemary, fifteen grains to the pint.

1903. *To Drive away Moths* from clothes, wrap up some yellow or turpentine soap in paper; or place an open bottle containing spirits of turpentine in the wardrobe.

1904. *Cold Green Tea*, very strong, and sweetened with sugar, when set about in saucers, attracts flies and destroys them.

1905. *For Keeping a Door open*, place a large brick, covered neatly with a piece of carpeting, against the door

1906. *A Stair-Carpet* should never be swept down with a long broom, but always with a short-handled brush, and a dust pan held closely under each step of the stairs.

1907. *A Hat* should be brushed every day with a hat-brush, and twice a-day in dusty weather.

1908. *Rings* that have stones in them should always be taken off the finger when the hands are washed, else they become discolored.

1909. *Reading in Bed* at night should be avoided, as besides the danger of an accident, it never fails to injure the eyes.

1910. *In Escaping from a Fire*, creep or crawl along the room with your face close to the ground. Children should be early taught how to press out a spark when it happens to reach any part of their dress, and also that running into the air will cause it to blaze immediately. (See page 204.)

1911. *Bronzed Chandeliers, Lamps, &c.*, should be merely dusted with a feather brush, or with a soft cloth, as washing them will take off the bronzing.

1912. *Iron Wipers.*—Old soft towels, or pieces of old sheets or tablecloths, make excellent iron wipers.

1913. *To Clean Looking-Glasses.*—First wash the glass all over with lukewarm soap-suds and a sponge. When dry, rub it bright with a buckskin and a little prepared chalk, finely powdered.

1914. *Flowers and Shrubs* should be excluded from a bedchamber.

1915. *Water* of every kind, except rain water, will speedily cover the inside of a tea-kettle with an unpleasant crust; this may easily be guarded against by placing a clean oyster-shell in the tea-kettle, which will always keep it in good order, by attracting the particles of earth or of stone

1916. *Paper Fire-Screens* should be coated with transparent varnish, otherwise they will soon become soiled and discolored.

1917. *The best Lamp-Oil* is that which is clear and nearly colorless, like water.

1918. *Oil-Grease* may be removed from a hearth by covering it immediately with thick hot ashes, or with burning coals.

1919. *Candles* improve by keeping a few months.

1920. *Glass Vessels*, and other utensils, may be purified and cleaned by rinsing them out with powdered charcoal.

1921. *Family Clocks* ought only to be oiled with the very purest oil, purified by a quart of lime-water to a gallon of oil, in which it has been well shaken, and suffered to stand for three or four days, when it may be drawn off.

1922. *To Heat a Bed* at a moment's notice, throw a little salt into the warming-pan, and suffer it to burn for a minute previous to use. (See page 17.)

1923. *To Destroy Flies* in a room, take half a teaspoonful of black pepper in powder, one teaspoonful of brown sugar, and one tablespoonful of cream, mix them well together, and place them in the room on a plate, where the flies are troublesome.

1924. *Feet, to Keep Warm in a Carriage or Cold Room.*—Use a stone or glass bottle filled with boiling water and wrapped in flannel.

1925. *To Prevent Cold Feet at Night.*—Rub the ankles and feet with the hand as hard as can be borne for five or ten minutes before retiring. This will be found an effectual remedy.

1926. *Another Way.*—Frequent washing, and rubbing them thoroughly dry, with a linen cloth, or flannel, is useful.

1927. *To Warm Beds.*—Take all the black or blazing coals out of the pan, and scatter a little salt over the remainder. This will prevent the smell of sulphur.

1928. *To Explore Unventilated Places.*—Light sheets of brown paper and throw into the well or cavern. Or, fix a long pipe to a pair of bellows, and blow into the place for some time.

1929. *To Destroy Crickets.*—Put Scotch snuff upon the holes where they come out.

1930. *To Brush Clothes.*—Have a wooden horse to put the clothes on, and a small cane to beat the dust out of them; also a board or table long enough for them to be put their whole length while brushing them.

1931. Have two brushes, one hard and the other soft. Use the hard brush for the great coats; the soft for the fine cloth garments. These should never be brushed with too hard a brush, as this will take off the nap.

1932. *The Cane for the Clothes* should not be too large. A small hand-whip is the best to beat with. Be careful not to strike the buttons.

1933. If the coat be wet and spotted with mud, let it be quite dry before brushing it. Then rub off the mud with the hands; put the coat at its full length on the board, and brush the cloth the same way the nap goes, which is toward the skirt of the coat.

1934. *Chimneys, Smoky, to Cure.*—A northern aspect often produces a smoky chimney.

1935. *Stacks of Chimneys* are less apt to smoke than single ones.

1936. *Straight Funnels* seldom draw well.

1937. *Large Fire-Places* are apt to smoke. When they do so, the lower aperture should be diminished.

1938. If the *chimney* smokes only when the fire is first lighted, lay any inflammable substance, as shavings, on the top of the grate; the rapid combustion of which will warm the air of the chimney, and give it a tendency upward before any smoke is produced.

1939. A *chimney so incorrigible* as to require the constant admission of fresh air, should have a pipe introduced, one of whose apertures is under the grate, and the other in the open air. Or openings may be made for ventilation near the top of the apartment.

1940. *To prevent unpleasant odor in Clothes laid up for a time*, place recently-made charcoal between the folds of the garments. Even when the odor has taken place, the charcoal will absorb it.

1941. *To Purify Stagnant Water.*—One part of chalk and two of alum will speedily purify stagnant water, and four parts of animal carbon and one of alum are sufficient to purify a thousand parts of muddy river water.

1942. *To Prevent the Smoking of a Lamp.*—Soak the wick in strong vinegar, and well dry it before you use it.

1943. *To Clean Cane Chairs.*—Sponge them, until soaked, with soap and hot water.

1944. *Clean White Vails.*—Put the vail in a solution of white soap, and let it simmer a quarter of an hour; squeeze it in some warm water and soap till quite clean. Rinse it from soap, and then in clean cold water, in which is a drop of liquid blue; then pour boiling water on a teaspoonful of starch, run the vail through this, and clear it well by clapping it. Afterward pin it out, keeping the edges straight and even.

1945. *Restoring Color to Silk.*—When the color has been taken from silk by acids, it may be restored by applying to the spot a little hartshorne, or sal-volatile.

1946. *Clean White Ostrich Feathers.*—Four ounces of white soap, cut small, dissolved in four pints of water, rather hot, in

a large basin; make the solution into a lather, by beating it with birch-rods, or wires.

1947. Introduce the feathers, and rub well with the hands for five or six minutes. After this soaping, wash in clean water, as hot as the hand can bear. Shake until dry.

1948. *Cure for a Burn.*—Wheat flour and cold water mixed to the consistency of soft paste, is an almost instantaneous cure for a burn, whether large or small. Renew before the first gets so dry as to stick.

1949. *Slippery Elm* bark powdered makes an excellent healing poultice for burns, sores, &c., boiled with milk and about one-third bread.

1950. *Cod-Liver Oil.*—This is a nauseating medicine, but the following receipt is said to remedy the bad taste.

1951. To a pint of cod-liver oil add an ounce of fine salt; shake them well together, till they amalgamate.

1952. *To Dress Squirrel and other Skins.*—Take a handful of common salt, and half the quantity of alum; boil it in half a gallon of water till dissolved. When cold, the skins may be put in to steep, and allowed to remain for a fortnight, occasionally turning them; they may then be taken out, stretched on a board (skin side outward) till dry; they will then be found perfectly soft and pliable.

1953. *Another Method.*—Stretch the fresh skin on a board, and dress it with water in which salt and alum have been dissolved—applying the solution with a brush. This does not injure the glossiness of the fur, which is apt to be affected when the skin is immersed.

1954. *To Clean Furs.*—Strip the fur articles of their stuffing and binding, and lay them as much as possible in a flat position.

1955. They must then be subjected to a very brisk brushing, with a stiff clothes-brush; after this, any moth-eaten parts

must be cut out, and be neatly replaced by new bits of fur to match.

1956. *Sable, Chinchilla, Squirrel, Fitch,* &c., should be treated as follows: Warm a quantity of new bran in a pan, taking care that it does not burn, to prevent which it must be actively stirred.

1957. When well warmed, rub it thoroughly into the fur with the hand. Repeat this two or three times; then shake the fur, and give it another sharp brushing until free from dust.

1958. *White Furs, Ermine, &c.,* may be cleaned as follows: Lay the fur on the table, and rub it well with bran made moist with warm water; rub until quite dry, and afterward with dry bran. The wet bran should be put on with flannel, and the dry with a piece of book-muslin.

1959. *The Light Furs,* in addition to the above, should be well rubbed with magnesia, or a piece of book-muslin, after the bran process.

1960. *Stretching Furs.*—Furs are usually much improved by stretching, which may be managed as follows: To a pint of soft water add three ounces of salt, dissolve; with this solution sponge the inside of the skin (taking care not to wet the fur), until it becomes thoroughly saturated; then lay it carefully on a board with the fur side downward, in its natural disposition; then stretch, as much as it will bear, to the required shape, and fasten with small tacks. The drying may be quickened by placing the skin a little distance from the fire or stove.

1961. *To Preserve Furs from Moths.*—Warm water, one pint; corrosive sublimate, twelve grains. If washed with this, and afterward dried, furs are safe from moth. Care should be taken to label the liquid "poison."

1962. *To Keep away Flies.*—No fly will enter a room in which a wreath of walnut leaves has been hung up. The experiment is worth trying.

1963. *Washing.*—The most important department of domestic economy naturally includes the washhouse, into which philosophy has found its way for the application of many useful principles, and much useful practice. (See p. 262.)

1964. *To Clean Morocco Shoes.*—Dissolve gum arabic in water, and mix with it a little white sugar. If it is to be kept any time, put in a little spirits of wine. Brush the shoes with it.

1965. *Cheap Door-Mats.*—Cut old broadcloth or any woolen articles into long strips from one to two inches broad. Braid three of these together, and sew the braid round in gradually increasing circles till large enough.

WISE ECONOMY.

1966. If you have a strip of land, do not throw away soap-suds. Both ashes and soap-suds are good manure for bushes and young plants.

1967. *Woolen Clothes* should be washed in very hot suds, and not rinsed. Lukewarm water shrinks them.

1968. Do not let coffee and tea stand in tin.

1969. Scald your wooden-ware often, and keep your tin-ware dry.

1970. Preserve the backs of old letters to write upon.

1971. If you have children who are learning to write, buy coarse white paper by the quantity, and keep it locked up, ready to be made into writing-books. It does not cost half so much as it does to buy them at the stationer's.

1972. See that nothing is thrown away which might have served to nourish your own family or a poorer one.

1973. As far as possible, have bits of bread eaten up before

they become hard; spread those that are not eaten, and let them dry, to be pounded for puddings, or soaked for brewis.

1974. *Brewis* is made of crusts and dry pieces of bread, soaked a good while in hot milk, mashed up, and eaten with salt.

1975. Above all, do not let crusts accumulate in such quantities that they cannot be used. With proper care, there is no need of losing a particle of bread.

1976. All the mending in the house should be done once a week, if possible.

1977. Never put out sewing. If it be not possible to do it in your own family, hire some one into the house, and work with them.

1978. Do not let knives be dropped into hot dish-water. It is a good plan to have a large tin pot to wash them in, just high enough to wash the blades *without wetting* the handles.

1979. It is better to accomplish perfectly a very small amount of work, than to half do ten times as much.

1980. *Charcoal Powder* will be found a very good thing to give knives a first-rate polish.

1981. *A Bonnet* and trimmings may be worn a much longer time, if the dust be brushed well off after walking.

1982. Much knowledge may be obtained by the good housewife observing how things are managed in well-regulated families.

1983.—*Apples* intended for dumplings should not have the core taken out of them, as the pips impart a delicious flavor to the dumpling.

1984. *A Rice Pudding* is most excellent without either eggs or sugar, if baked gently; it keeps better without eggs.

1985. "Wilful waste makes woful want." Do not cook a fresh joint whilst any of the last remains uneaten—hash it up, and with gravy and a little management eke out another day's dinner.

1986. A warming-pan full of coals, or a shovel of coals, held over varnished furniture, will take out white spots. Care should be taken not to hold the coals near enough to scorch; and the place should be rubbed with a flannel while warm.

1987. *Sal-volatile* or hartshorne will restore colors taken out by acid. It may be dropped upon any garment without doing harm.

1988. *New Iron* should be very gradually heated at first. After it has become inured to the heat, it is not so likely to crack.

1989. The shanks of mutton make a good stock for nearly any kind of gravy—and they are very cheap—a dozen may be had for a penny, enough to make a quart of delicious soup.

1990. Thick curtains, closely drawn around the bed, are very injurious, because they not only confine the effluvia thrown off from our bodies whilst in bed, but interrupt the current of pure air.

1991. Regularity in the payment of accounts is essential to housekeeping. All tradesmen's bills should be paid weekly, for then any errors can be detected whilst the transactions are fresh in the memory.

1992. *Linen Rags* should be carefully saved, for they are extremely useful in sickness. If they have become dirty and worn by cleaning silver, &c., wash them and scrape them into lint.

1993. If you are troubled to get soft water for washing, fill a tub or barrel half full of wood ashes, and fill it up with water, so that you may have ley whenever you may want it. A gallon of strong ley put into a great kettle of hard water, will make it as soft as rain water.

1994. "*Morning's Milk*," says an eminent German philosopher, "commonly yields some hundredths more cream than the evening's at the same temperature. That milked at noon furnishes the least; it would therefore be of advantage, in making butter and cheese, to employ the morning's milk, and to keep the evening's for domestic use."

1995. *Scouring Drops for Removing Grease.*—There are several preparations of this name; one of the best is made as follows: Camphene, or spirits of turpentine, three ounces; essence of lemon, one ounce; mix.

1996. *Sweeping Carpets.*—Persons who are accustomed to use tea-leaves for sweeping their carpets, and find that they leave stains, will do well to employ fresh cut grass instead. It is better than tea-leaves for preventing dust, and gives the carpets a very bright, fresh look.

1997. *Economy of Fuel.*—There is no part of domestic economy which everybody professes to understand better than the management of a fire, and yet there is no branch in the household arrangements where there is a greater proportional and unnecessary waste, than arises from ignorance and mismanagement in this article.

1998. It is an old adage that we must stir no man's fire until we have known him seven years; but we might find it equally prudent if we were careful as to the stirring of our own.

1999. Anybody, indeed, can take up a poker and toss the coals about; but that is not stirring a fire!

2000. If the consumer, instead of ordering a large supply of coal at once, will at first content himself with a sample, he may, with very little trouble, ascertain who will deal fairly with him; and, if he wisely pays ready money, he will be independent of his coal merchant; a situation which few families, even in genteel life, can boast of.

2001. Indeed, we cannot too often repeat the truth, that to

deal for ready money only, in all the departments of domestic arrangement, is the truest economy.

2002. Ready money will always command the best and cheapest of every article of consumption, if expended with judgment; and the dealer, who intends to act fairly, will always prefer it.

2003. Trust not him who seems more anxious to give credit than to receive cash.

2004. The former hopes to secure custom by having a hold upon you in his books; and continues always to make up for his advance, either by an advance price, or an inferior article; whilst the latter knows that your custom can only be secured by fair dealing.

2005. There is, likewise, another consideration, as far as economy is concerned, which is, not only to buy with ready money, but to buy at proper seasons; for there is with every article a cheap season and a dear one.

2006. The master of a family who fills his coal cellar in the middle of the summer, rather than the beginning of the winter, will save one-fourth which it would otherwise cost him; and will be enabled to see December's snows falling without feeling his enjoyment of his fireside lessened by the consideration that the cheerful blaze is supplied at twice the rate that it need have done, if he had exercised more foresight.

2007. We must now call to the recollection of our readers that chimneys often smoke, and that coal is often wasted by throwing too much fuel at once upon a fire.

2008. To prove this observation, it is only necessary to remove the superfluous coal from the top of the grate, when the smoking instantly ceases.

2009. As to the waste, that evidently proceeds from the frequent, intemperate and injudicious use of the poker, which not only throws a great portion of the small coals among the

cinders, but often extinguishes the fire it was intended to foster.

2010. *Economy in Carpets.*—In buying a carpet, as in every thing else, those of the best quality are cheapest in the end. As it is extremely desirable that they should look as clean as possible, avoid buying carpet that has any white in it. Even a very small portion of white interspersed through the pattern will in a short time give a dirty appearance to the whole; and certainly no carpet can be worse for use than one with a white ground.

2011. A carpet in which all the colors are light, never has a clean, bright effect, from the want of dark tints to contrast and set off the light ones.

2012. For a similar reason, carpets whose colors are all of what artists call middle tint (neither dark nor light), cannot fail to look dull and dingy, even when quite new.

2013. The caprices of fashion at times bring these ill-colored carpets into vogue; but in apartments where elegance is desirable, they always have a bad effect.

2014. For a carpet to be really beautiful and in good taste, there should be, as in a picture, a judicious disposal of light and shadow, with a gradation of very bright and of very dark tints; some almost white, and others almost or quite black.

2015. *Red Carpets.*—The most truly chaste, rich and elegant carpets, are those where the pattern is formed by one color only, but arranged in every variety of shade. For instance, we have seen a Brussels carpet entirely red; the pattern formed by shades or tints, varying from the deepest crimson (almost a black), to the palest pink (almost a white).

2016. *Green Carpets.*—Also one of green only, shaded from the darkest bottle-green, in some parts of the figure, to the lightest pea-green in others.

2017. *Brown Carpets.*—Another, in which there was no color but brown, in all its various gradation, some of the

shades being nearly black, others of a light buff. All these carpets had much the look of rich cut velvet.

2018. The *Curtains, Sofas, &c.*, of course, were of corresponding colors, and the effect of the whole was noble and elegant.

2019. Carpets of many gaudy colors are much less in demand than formerly. Two colors only, with the dark and light shade of each, will make a very handsome carpet.

2020. A very light blue ground, with the figure of shaded crimson or purple, looks extremely well; so does a salmon-color or buff ground, with a deep green figure; or a light yellow ground, with a shaded blue figure.

2021. *Rugs.*—If you cannot obtain a hearth-rug that exactly corresponds with the carpet, get one entirely different; for a decided contrast looks better than a bad match.

2022. We have seen very handsome hearth-rugs with a rich, black, velvet-looking ground, and the figure of shaded blue, or of various tints of yellow and orange.

2023. A carpet decidedly light-colored throughout, has a good effect on the floor, or continues long to look clean.

THINGS TO KNOW.

2024. Why do candles and lamps "spirt," when rain is at hand?

2025. Because the air is filled with vapor, and the humidity penetrates the wick, where (being formed into steam) it expands suddenly, and produces a little explosion.

2026. Why does a drop of water sometimes roll along a piece of hot iron without leaving the least trace.

2027. Because (when the iron is very hot indeed) the bottom of the drop is turned into vapor, which buoys the drop up, without allowing it to touch the iron.

2028. Why does a laundress put a little saliva on a flat-iron, to know if it be hot enough?

2029. Because, when the saliva sticks to the box, and is evaporated, she knows it is *not* sufficiently hot: but when it runs along the iron, it is.

2030. Why is the flat-iron hotter, if the saliva runs along it, than if it adheres till it is evaporated?

2031. Because, when the saliva runs along the iron, the heat is sufficient to convert the bottom of the drop into vapor; but if the saliva will not roll, the iron is not sufficiently hot to convert the bottom of the drop into vapor.

2032. Why do wet feet or clothes give us "cold"?

2033. Because the evaporation absorbs the heat so abundantly from the surface of our body, that its temperature is lowered below its natural standard; in consequence of which health is injured. [This also explains why it is dangerous to sleep in a damp bed.]

2034. Why is the health injured when the temperature of the body is reduced below its natural standard?

2035. Because the balance of the circulation is destroyed, blood is driven away from the external surface by the chill, and thrown upon the internal organs, which are oppressed by this increased load of blood.

2036. Why do not sailors get cold, who are frequently wet all day with sea-water.

2037. Because the salt of the sea retards evaporation; and (as the heat of their bodies is drawn off gradually) the sensation of cold is prevented. Also, the salt of the sea acts as a stimulant, and keeps the blood circulating in the skin.

2038. What is the cause of snow?

2039. When the air is nearly saturated with vapor, and condensed by a current of air below freezing-point, some of the vapor is condensed, and frozen into snow. A few years ago, some fishermen (who wintered at Nova Zembla), after they had been shut up in a hut for several days, opened the window; and the cold external air rushing in, instantly con-

densed the air of the hut, and its vapor fell on the floor in a shower of snow.

2040. What is the cause of sleet?

2041. When flakes of snow (in their descent) pass through a bed of air above freezing point, they partially melt, and fall to the earth as half-melted snow.

2042. What is hail?

2043. Rain which has passed in its descent through some cold bed of air, and has been frozen into drops of ice.

2044. What is rain?

2045. The vapor of the clouds or air condensed, and precipitated to the earth.

2046. Why are rain-drops sometimes much larger than at other times?

2047. When the rain-cloud is floating near the earth, the drops are larger, because such a cloud is much more dense than one more elevated. The size of the rain-drop is also increased according to the rapidity with which the vapors are condensed.

2048. Why does the Bible say that God "giveth snow like wool"?

2049. Because snow (being a very bad conductor of heat) protects vegetables and seeds from the frost and cold.

2050. How does the non-conducting power of snow protect vegetables from the frost and cold?

2051. It prevents the heat of the earth from being drawn off by the cold air which rests upon it.

2052. Why are woolens and furs used for clothing in cold weather?

2053. Because they are very bad conductors of heat, and therefore prevent the warmth of the body from being drawn off by the cold air.

2054. Do not woolens and furs actually impart heat to the body?

2055. No; they merely prevent the heat of the body from escaping.

2056. Where would the heat escape to, if the body were not wrapped in wool or fur?

2057. The heat of the body would fly off into the air: for the cold air, coming in contact with our body, would gradually draw away its heat, till it was as cold as the air itself.

2058. What then is the principal use of clothing in winter time?

2059. To prevent the animal heat from escaping too freely; and to protect the body from the external air (or wind), which would carry away its heat too rapidly.

2060. Why are March winds dry?

2061. Because they generally blow from the east or north-east, and therefore sweep over the continent of America.

2062. What is the use of March winds?

2063. They dry the soil (which is saturated by the floods of February), break up the heavy clods, and fit the land for the seeds which are committed to it.

2064. Why is it said that "March comes in like a lion?"

2065. Because it comes in with blustering east winds, so essential to dry the soil, which would otherwise rot the seed committed to it.

2066. Why does "March go out like a lamb?"

2067. Because the water, evaporated by the high winds, falls again in showers to fertilize the earth, and breaks the violence of the winds.

2068. Why is it said that "March flowers make no summer bowers?"

2069. Because, if the spring be very mild, vegetation gets too forward, and is pinched by the nightly frosts, so as to produce neither fruits nor flowers.

2070. Why is it said that "April showers bring May flowers?"

2071. Because April showers supply the principal nourishment on which the seeds depend for their development.

2072. Why does a polished metal teapot make better tea than a black earthen one?

2073. As polished metal is a very bad radiator of heat, it keeps the water hot much longer; and the hotter the water is, the better it draws the tea.

2074. Why will not a dull black teapot make good tea?

2075. Because the heat of the water flies off so quickly, through the dull black surface of the teapot, that the water is very rapidly cooled, and cannot "draw" the tea.

2076. Do not pensioners, and aged cottagers, generally prefer the black earthen teapot to the bright metal one?

2077. Yes, because they set it on the hob to "draw;" in which case, the little black teapot will make the best tea.

2078. Why will a black teapot make a better tea than a bright metal one, if it is set on the hob to draw?

2079. Because the black teapot will absorb heat plentifully from the fire, and keep the water hot; whereas a bright metal teapot (set upon the hob) would throw off the heat by reflection.

2080. Then sometimes a black earthen teapot is the best, and sometimes a bright metal one?

2081. Yes; when the teapot is set on the hob to "draw," the black earth is the best, because it absorbs heat; but when the teapot is not set on the hob the bright metal is the best, because it radiates heat very slowly, and therefore keeps the water hot.

2082. Why does a saucepan which has been used boil in a shorter time than a new one?

2083. Because the bottom and back are covered with soot, and the black soot rapidly absorbs the heat of the glowing coals.

2084. Why should the front and lid of a saucepan be clean and bright?

2085. As they do not come in contact with the fire, they cannot absorb heat, and (being bright) they will not suffer the heat to escape by radiation.

2086. Why should not the bottom and back of a kettle be cleaned and polished?

2087. Because they come in contact with the fire, and (while they are covered with black soot) absorb heat freely from the burning coals.

2088. Why are dinner-covers made of bright tin or silver?

2089. Because light-colored and highly-polished metal is a very bad radiator of heat; and, therefore, bright tin or silver will not allow the heat of the cooked food to escape through the cover by radiation.

2090. Why should a meat-cover be very brightly polished?

2091. If the cover be dull or scratched, it will absorb heat from the food; and instead of keeping it hot, it will make it cold.

2092. Why should a silver meat-cover be plain, and not chased?

2093. Because, if the cover be chased, it will absorb heat from the food; and instead of making it hot, will make it cold.

2094. What is the smoke of a candle?

2095. Solid particles of carbon, separated from the wick and tallow, but not consumed.

2096. Why are some particles consumed and not others?

2097. The combustion of the carbon depends upon its combining with the oxygen of the air. Now, as the outer surface of the flame prevents the access of air to the interior parts, much of the carbon of those parts passes off in smoke.

2098. Why do lamps smoke?

2099. Either because the wick is cut unevenly, or else because it is turned up too high.

2100. Why does a lamp smoke, when the wick is cut unevenly?

2101. Because the points of the jagged edge (being very easily separated from the wick) load the flame with more carbon than it can consume; and as the heat of the flame is greatly diminished by these little bits of wicks, it is unable to consume even the usual quantity of smoke. The same applies when the wick is turned up too high.

2102. Why does a lamp-glass diminish the smoke of a wick?

2103. Because it increases the supply of oxygen to the flame, by producing a draught; and it concentrates and reflects the heat of the flame; in consequence of which the combustion of the carbon is more perfect, and very little escapes unconsumed.

2104. *Hints about Making Butter* (See page 287).—Milk should never be set for butter in a dark, damp cellar—as in the case with butter-makers in this section—as the cream is thereby moulded before it has had time to rise, which gives the butter a mouldy taste.

2105. The milk is allowed to stand too long before being skimmed, which gives it a cheesy taste.

2106. The cream is kept too long before it is churned, after it is skimmed, which gives it the taste of the other two; and also a sour taste.

2107. The butter should never be washed in water, because it takes away that beautiful aroma so essential in good butter.

2108. It should never be taken in a person's warm hands, as the heat melts a certain portion of the globules, which gives it an oily taste, and makes it become rancid very soon.

2109. The milk should be set in good clean tin or earthen pans, in a dry, open, airy and shady place, above ground, if possible, although a cellar may be so built, and ventilated, as to answer the purpose.

2110. It should never be set over twenty-four hours in warm

weather; and for a dairy of three cows or over, the cream should be churned every morning, and never be kept over forty-eight hours, in warm weather; in cold weather it may be kept longer.

CLEANLINESS.

2111. The want of cleanliness is a fault which admits of no excuse. Where water can be had for nothing, it is surely in the power of every person to be clean.

2112. The discharge from our bodies, by perspiration, renders frequent changes of apparel necessary.

2113. Change of apparel greatly promotes the secretion from the skin, so necessary to health.

2114. When that matter which ought to be carried off by perspiration is either retained in the body, or reabsorbed by dirty clothes, it is apt to occasion fevers and other diseases.

2115. Most diseases of the skin proceed from want of cleanliness. These indeed may be caught by infection, but they will seldom continue long where cleanliness prevails.

2116. To the same cause must we impute the various kinds of vermin that infest the human body, houses, &c. These may generally be banished by cleanliness alone.

2117. Perhaps the intention of Nature, in permitting such vermin to annoy mankind, is to induce them to the practice of this virtue.

2118. One common cause of putrid and malignant fevers is the want of cleanliness.

2119. These fevers commonly begin among the inhabitants of close, dirty houses, who breathe bad air, take little exercise, use unwholesome food, and wear dirty clothes. There the infection is generally hatched, which spreads far and wide

to the destruction of many. Hence cleanliness may be considered as an object of the public attention.

2120. It is not sufficient that I be clean myself, while the want of it in my neighbor affects my health as well as his own.

2121. If dirty people cannot be removed as a common nuisance, they ought at least to be avoided as infectious. All who regard their health, should keep at a distance, even from their habitations.

2122. In places where great numbers of people are collected, cleanliness becomes of the utmost importance.

2123. It is well known, that infectious diseases are caused by tainted air. Every thing, therefore, which tends to pollute the air, or spread the infection, ought with the utmost care to be avoided.

2124. For this reason, in great towns, no filth of any kind should be permitted to lie upon the streets. We are sorry to say, that the importance of general cleanliness does by no means seem to be sufficiently understood.

2125. It were well if the lower classes of the inhabitants of the United States would imitate the Dutch, in the cleanliness of their streets, houses, &c.

2126. Water, indeed, is easily obtained in Holland; but the situation of most towns in the United States is more favorable to cleanliness.

2127. Nothing can be more agreeable to the senses, more to the honor of the inhabitants, or conducive to their health, than a clean town; nor does any thing impress a stranger sooner with a disrespectful idea of any people than its opposite.

2128. It is remarkable, that, in most eastern countries, cleanliness makes a great part of their religion. The Mahometan, as well as the Jewish religion, enjoins various bathings, washings, and purifications.

2129. No doubt these were designed to represent inward purity; but they are at the same time calculated for the preservation of health.

2130. However whimsical these washings may appear to some, few things would appear more to prevent diseases than a proper attention to many of them.

2131. Were every person, for example, after handling a dead body, visiting the sick, &c., to wash and to change his clothes before he went into company, or sat down to meat, he would run less hazard either of catching the infection himself, or communicating it to others.

2132. Frequent washing not only removes the filth which adheres to the skin, but likewise promotes the perspiration, braces the body, and enlivens the spirits.

2133. Even washing the feet tends greatly to preserve health. The sweat and dirt with which these parts are frequently covered, cannot fail to obstruct their perspiration. This piece of cleanliness would often prevent colds and fevers.

2134. Were people to bathe their feet and hands in warm water at night, after being exposed to cold or wet through the day, they would seldom experience any of the fatal effects which often proceed from these causes.

2135. In places where great numbers of sick people are kept, cleanliness ought most religiously to be observed. The very smell in such places is often sufficient to make one sick. It is easy to imagine what effect that is likely to have upon the disease.

2136. A person in health has a greater chance to become sick, than a sick person has to get well, in an hospital or infirmary where cleanliness is neglected.

2137. The brutes themselves set us an example of cleanliness. Most of them seem uneasy, and thrive ill, if they be not kept clean.

2138. A horse that is kept thoroughly clean, will thrive better on a smaller quantity of food, than with a greater, where cleanliness is neglected.

2139. Even our own feelings are sufficient proof of the necessity of cleanliness. How refreshed, how cheerful and agreeable does one feel on being shaved, washed and dressed; especially when these have been long neglected.

2140. Most people esteem cleanliness; and even those who do not practice it themselves, often admire it in others.

2141. Superior cleanliness sooner attracts our regard than even finery itself, and often gains esteem where the other fails.

2142. A clean, fresh, and well-ordered house exercises over its inmates a moral no less than a physical influence, and has a direct tendency to make the members of a family sober, peaceable, and considerate of the feelings and happiness of each other; nor is it difficult to trace a connection between habitual feeling of this sort and the formation of habits of respect for property, for the laws in general, and even for those higher duties and obligations the observance of which no laws can enforce.

PREVENTION OF ACCIDENTS.

2143. The following regulations should be engraved on the memories of all :—

2144. As most sudden deaths come by water, particular caution is therefore necessary in its vicinity.

2145. Stand not near a tree, or any leaden spout, iron gate, or palisade, in time of lightning.

2146. Lay loaded guns in safe places, and never imitate firing a gun in jest.

2147. Never sleep near charcoal; if drowsy at any work where charcoal fires are used, take the fresh air.

2148. Carefully rope trees before they are cut down, that when they fall they may do no injury.

2149. When benumbed with cold, beware of sleeping out of doors; rub yourself, if you have it in your power, with snow, and do not hastily approach the fire.

2150. Beware of damps.

2151. Air vaults, by letting them remain open some time before you enter, or scattering powdered lime in them.

2152. Where a lighted candle will not burn, animal life can not exist; it will be an excellent caution, therefore, before entering damp and confined places, to try this simple experiment.

2153. Never leave saddle or draught horses, while in use, by themselves, nor go immediately behind a led horse as he is apt to kick.

2154. Ride not on foot-ways.

2155. Be wary of children, whether they are up or in bed; and particularly when they are near the fire, an element with which they are very apt to amuse themselves.

2156. Leave nothing poisonous open or accessible; and never omit to write the word "Poison" in large letters upon it, wherever it may be placed.

2157. In walking the streets, keep out of the line of the cellars; and never look one way and walk another.

2158. Never throw pieces of orange-peel, or broken glass bottles, into the streets.

2159. Never meddle with gunpowder by candle-light.

2160. In trimming a lamp with naphtha, never fill it. Leave space for the spirit to expand with warmth.

2161. Never quit a room, leaving the poker in the fire.

2162. When the brass rod of the stair-carpet becomes loose, fasten it immediately.

2163. In opening effervescing drinks, such as soda-water, hold the cork in your hand.

2164. Quit your house with care on a frosty morning.

2165. Have your horses' shoes roughed directly there are indications of frost.

2166. Keep lucifer matches in their cases, and never let them be strewed about.

ADDITIONAL DOMESTIC HINTS.

2167. *Easy method of Breaking Glass to any required Figure.*—Make a small notch by means of a file on the edge of a piece of glass, then make the end of a tobacco-pipe, or of a rod of iron of the same size, red hot in the fire, apply the hot iron to the notch, and draw it slowly along the surface of the glass in any direction you please: a crack will follow the direction of the iron.

2168. *Cleansing of Furniture.*—The cleaning of furniture forms an important part of domestic economy, not only in regard to neatness, but also in point of expense.

2169. The readiest mode indeed consists in good manual rubbing, or the "essence of elbows," as it is whimsically termed; but our finest cabinet-work requires something more, where brilliancy of polish is of importance.

2170. *China and Glass Ware.*—For the best way of cleaning, see page 31.

2171. Much of the red now used in China is actually produced by the *anotto* extracted from the cuttings of scarlet

cloth, which have long formed an article of exportation to Canton.

2172. It ought to be taken for granted that all china or glassware is well tempered; yet a little careful attention may not be misplaced, even on that point.

2173. Ornamental china or glassware are not exposed to the action of hot water in common domestic use.

2174. It will be proper never to apply water to them beyond a tepid temperature.

2175. An ingenious and simple mode of annealing glass has been some time in use by chemists. It consists in immersing the vessel in cold water, gradually heated to the boiling point, and suffered to remain till cold, when it will be fit for use.

2176. Soap and labor may be saved by dissolving alum and chalk in bran-water, in which the linen ought to be boiled, then well rinsed out, and exposed to the usual process of bleaching.

2177. Soap may be disused, or nearly so, in the getting up of muslins and chintzes, which should always be treated agreeably to the oriental manner; that is to wash them in plain water, and then boil them in congee or rice-water: after which they ought not to be submitted to the operation of the smoothing iron, but rubbed smooth with a polished stone.

2178. The economy which must result from these processes renders their consideration important to every private family, in addition to which we must state that the improvements in philosophy extend to the laundry as well as to the washhouse.

AGRICULTURE—MORE HINTS.

(SEE PAGES 198 AND 264.)

2179. *Small Farms.*—Never have more land in culture than can be *well cultivated.*

2180. *Be a Farmer*, not a mere earth-scraper, lazily scratching up sufficient earth to destroy the face of the soil, and throw seed away, or you will always have to scratch hard for a living. But make your farm a source of pride, and it will surely become a source of profit. Make the object to be not to have *many*, but *rich* acres.

2181. *Turnip Fly* may be expelled by the use of fish-oil, one or two gallons to the acre.

2182. *Bone Dust.*—An English proverb says, "One ton of bone-dust saves the importation of ten tons of grain."

2183. *Corn.*—Sprinkling with salt and water will check the weevil. Of all the grains, corn is the most valuable, taking into view quantity and price. Soaking the seed in a solution of saltpetre keeps off the worm, and largely increases the crop.

2184. *Rye* is more thrifty on soil of a dry, sandy, or gravely texture, if well manured, and winters best when sown early.

2185. *Lime*, as manure for wheat, is of great importance Use about three bushels to the acre.

2186. *Fields.*—As a general rule, with but few exceptions, square large fields are more advantageous than small irregular ones, requiring less fence, and being more easily watered, manured, plowed, and harvested.

2187. *Musty Grain* is made sweet by putting it in boiling water, (double the quantity of grain), letting it cool in the water, and then drying it well. Skim the water.

2188. *A Single Weed* may draw out the nourishment that would have given fullness to half-a-dozen ears. To be free from taxes is far less important than to be free from weeds.

2189. *Fences.*—Around each post hill the earth, to carry off the water, and charr the end a few inches above the surface. Cedar fences last about 15 years, which should lead owners to inquire where the fences are to come from hereafter.

2190. *Manure.*—Every farmer can double the quantity of his domestic or yard manure, with scarcely any additional expense. At least fifty per cent. of the nutritive properties of yard manure are lost by drenching of rains, excessive fermentation, and injurious application to soil.

2191. *Plow deep.*—Let a farmer examine the extent and depth to which the roots of grain, in a loose and favorable soil, will spread, and he will cease to wonder at the failure of a crop where the subsoil has never been stirred by the plow.

2192. *Green vegetables*, when put under the soil and submitted to the process of decomposition, are efficacious in restoring exhausted soils.

2193. *Fertilizing.*—Buckwheat and clover are striking instances of this power in green crops to fertilize soils, and both have been extensively used for this purpose.

2194. *Agriculture* is worthy the most liberal patronage of our governments, state and national; it ought to be enlightened by a better (and thorough) education of the agricultural class.

2195. *Three Pillars of the State.*—Agriculture, manufactures, commerce, stand together; but they stand together like pillars in a cluster, the largest in the centre, and that largest is agriculture.

2196. *The Civilizer.*—Let us never forget that the cultivation of the earth is the most important labor of man. Man, without the cultivation of the earth, is in all countries a savage. When tillage begins, other arts follow. The farmers, therefore, are the founders of human civilization.

2197. *Independence of Farmers.*—We live in a country of small farms; a country, in which men cultivate with their own hands, their own fee-simple acres; drawing not only their subsistence, but also their spirit of independence, and manly freedom from the ground they plow.

2198. *The Glory of Agriculture.*—"The task of working

improvements on the earth is much more delightful than all the vain glory which can be acquired by ravaging it with the most uninterrupted career of conquests."—*Washington*

CATTLE.

(SEE PAGE 289.)

2199.—*Treat Domestic Animals kindly and tenderly.*—Domestic animals of all kinds from a horse down to a chicken, should be treated with gentleness and mildness; men or boys who are rash and bad-tempered, ought not to be permitted to have charge of them or to interfere with their management. Animals that are kept in constant fear of suffering never thrive well, and they often become vicious and intractable by unkind and cruel treatment.

2200. *Keep Stock in good condition.*—An animal may be kept short of food in the latter part of the fall or first of winter, at a small saving of food but at a loss in the condition of the animal.

2201. *Stables and Food.*—Provide comfortable sheds and stables. Remember that a *want of comfort is always a waste of flesh.* Give a sufficiency of food and drink, with great regularity. A meal ten minutes later than the usual time, causes the animal to fret, and fretting lessens flesh.

2202. *Drink and Litter.*—Most animals will drink several times a day, and should therefore have it as often as they want it. They should have plenty of clean litter as often as needed. With such management, there will be an almost incredible saving of food.

Tight Stables should always be ventilated. The breath and manure from animals always causes impure air.

2203. *Oxen.*—Being well-mated, oxen are more easily trained; and the more easily to effect this, much self-denial on the part of the driver, much coolness of temper, more training by motion and less by voice, may be highly advantageous to man and beast.

2204. *To Select.*—Adopt the practice of selecting best

lambs every year, for stock. In a few years you have first-rate sheep. The same course will produce the same effects in every kind of animal.

2205. *Hogs.—Food.*—If pumpkins, roots, apples, or any of them be fed to fattening hogs with corn, the advantage will be salutary. Most of the food for swine should be cooked. Swine fatten much faster on fermented, than on unfermented food. Salt, charcoal, and once in a while sulphur, are excellent for hogs under all circumstances.

Good Medicine.—When your hogs get sick, you know not of what, give them ears of corn, first dipped in tar, and then rolled in sulphur.

2206. *Bees.*—(See p. 176).—Every farmer should keep bees; a few swarms to furnish honey for his own use, if no more. They toil with unremitting industry, asking but a full sweep of the wing, and no monopoly. Every man, in either town or country, can keep bees to advantage.

2207. *Care of Bees in Winter.*—A cold, dry, dark room, is the best winter-quarters for bees. They will consume less honey than if left on their summer stands, and will not be weakened by the loss of thousands, which, tempted out by the premature warmth, are caught by the cold winds, fall to the ground, and never rise again.

2208. *"Never kill a bee."*—The smoke of the *fungus maximus*, or common puff ball, when dried so as to hold fire, has a stupefying effect on the bees, and renders them as harmless as brimstone does, without any of its deadly effects.

2209. *Mignonette, Sweet.*—Is especially mentioned as easily cultivated by drills in a garden, and is one of the finest and richest flowers in the world from which the honey-bee can extract its food.

2210. *Horses.*—See page 199.

2211. *To cure Scratches on a Horse.*—Wash the legs with warm strong soap-suds, and then with beef brine. Two applications will cure the worst case.

2212. *Bite of a Spider.*—Catnip bruised and applied to the wound, is said to be a cure for the bite of a spider.

2213. *To preserve a Granary from Insects and Weasels.*—Make the floor of Lombardy poplars.

2214. *To prevent the Creaking of a Door.*—Rub a bit of soap on the hinges.

2215. *Sulphur* is valuable in preserving grapes, plants, &c., from insects.

2216. *Salt* is really necessary to horses, cattle, and sheep, and they should be supplied with it at regular stated intervals throughout all seasons of the year.

2217. *Manure*, on a wet soil, produces but half its effect; and gypsum, that grand stimulant of dry soils, on a wet one is useless.

2218. *Hen-House* should be warm in winter, well-ventilated, white-washed, and kept clean. For the floor, use slacked lime, fine gravel or ashes, or burnt oyster shells. (See page 200.)

2219. *A single dozen* fowls, properly attended, will furnish a family with more than 2,000 eggs in a year, and 100 full-grown chickens for fall and winter stores.

2220. *Expense.*—The expense of feeding the dozen fowls will not amount to 18 bushels of Indian corn. They may be kept in cities as well as in the country, and will do as well shut up the year round as to run at large, with proper care.

2221. *A Fact.*—Eggs the nearest to roundness produce females, and those pointed at one end always produce males.

2222. *For Fattening.—Boiled* Indian, wheat and barley, is better than oats, rye, or buckwheat. One-third is gained by *boiling.*

2223. *Eggs*, little boiled or poached, in small quantity, convey much nourishment; the yolk only should be eaten by invalids

2224. *Salt for Poultry.*—Salt is good for water-fowls, but death to land fowls and birds.

2225. *Salt for Pigeons.*—Pigeons are fond of salt, and it keeps them in health. Lay a large heap of clay near the house, and let the salt-brine that may be done with in the family be poured upon it.

2226. *To Fatten Fowls in a short time.*—Mix together ground rice well scalded with milk, and add some coarse sugar. Feed them with this in the day-time, but not too much at once; let it be pretty thick.

2227. *Pork cured.*—Soon as cool enough to cut, and before it freezes, pack a clean cask full, with plenty of salt on all sides of each piece. Fill up with water, taking care, by means of a large stone, to keep the pork under the pickle, and covered from flies, in a cellar. Never boil pickle.

2228. *Pork Feeding.*—It is a well-ascertained fact, that more meat will be made on half the weight of corn, if ground and made into mush instead of being fed whole.

2229. *In Smoking Hams*, &c., be careful not to have the fire too nigh, or the smoke-house too tight. It is best done in an upper story, to which the smoke is conveyed in tubes, from oak or maple chips in the cellar. (See p. 324.)

2230. *Hollow Horn.*—Where supposed to exist, feed half-peck potatoes twice a week, and treat your cattle kindly in food and shelter.

2231. *Sheep* must be fed well, kept dry, have salt often, and pure air, and be grazed in hilly stony pastures.

2232. *Cows.*—Those who wish their cows to give large messes of milk in the winter season, should give them warm drink. The extra trouble will be more than repaid in the increased quantity of milk. (See pp. 285–6.)

2233. *Wild Onion* may be destroyed by cultivating corn, plowing and leaving the field in its plowed state all winter.

2234. *Remember.*—The great rule in relation to animals holds perfect in its application to vegetables; breed only from the best animals; *defects and imperfections have always a tendency to propagate themselves, and are always, in a greater or less degree, transmitted.*

2235. *Wheat* shoots strongest when there is an interval between the time of plowing and sowing, but *barley* is most vegetative when sown immediately after the plow.

2236. *Grease Wheels.*—Fifty parts, by weight, of pulverized black lead, 50 of lard, 50 of soap, and 5 of quicksilver. Rub the lard and mercury first together, then the lead and soap. If well mixed, it is invaluable.

2237. *Plants*, when drooping, are revived by a few grains of camphor.

2238. *Flowers* beginning to fade, can be restored by putting the stems in scalding water.

2239. *Bacon Hams in Summer.*—Pack in a barrel, in clean dry ashes or charcoal; head up the barrel and put it where it is dry, and as cool as possible.

2240. *Timber* cut in the spring and exposed to the weather *with the bark on*, decays much sooner than that *cut in the fall.*

2241. *In Feeding* with corn, 60 lbs. ground goes as far as 100 lbs. in the kernel.

2242. *Apples.*—Experiments show apples to be equal to potatoes to improve hogs, and decidedly profitable for fattening cattle.

2243. *Pears* are greatly improved by grafting on the mountain ash.

2244. *Rats* and other vermin are kept away from grain by a sprinkling of garlic when packing the sheaves.

2245. *Wet Land.*—Money skillfully expended in drying land, by draining or otherwise, will be returned with ample interest.

2246. *Grass.*—Sweet and nutritious grass gives a richness and flavor to milk, attainable from no other source.

2247. *Curing Fodder.*—Bundles may be so placed around centre-poles as to form a hollow-stack, having a foundation of brush, sticks, &c., admitting a circulation of air that will thoroughly cure fodder in the shade.

2248. *Turnips* of small size have double the nutritious matter that large ones have.

2249. *Ruta Baga* is the only root that increases in nutritious qualities as it increases in size.

2250. *In transplanting* trees, the hole should not be proportioned to the extent of the roots *as they are*, but to their extent as they *may be* and *should be*.

2251. *Toads* are the very best protection of cabbages against lice.

2252. *Peach Trees* are protected from hard winters by covering the roots a foot deep with straw, in *January*, after the ground has become thoroughly frozen, which keeps the frost in the ground, and so prevents the sap from starting until the Spring is fairly opened.

2253. *Save your Fire Wood.*—Mr. Madison, in his Notes of Agriculture, says, "Of all the errors in our rural economy, none perhaps is to be so much regretted, because none so difficult to be repaired, as the excessive and injudicious destruction of fire-wood.

2254. *Sorrel* may be killed out by lime, while ashes have no effect on it.

2255. *Shumac* or *Sumac*, a poisonous shrub or plant, which grows wild in abundance, and frequently where nothing else

will, is used for dyeing in England, at the rate of thirteen thousand tons per annum. It might be made a source of profit to our farmers.

GARDENING

(SEE PAGE 291.)

2256. *Kitchen Garden.*—This is one of the most important parts of general domestic economy, whenever the situation of a house will permit a family to avail themselves of its assistance, in aid of butcher's bills.

2257. It is, indeed, much to be regretted that small plots of ground, in the immediate vicinity of the metropolis more especially, are too often frittered away into shrubberies and baby gardens, when they might more usefully be employed in raising vegetables for the family, during the week-day residence in town, than wasting their sweetness on the smoky air in all the pride of lilac, hollyhock, and bachelors' buttons, to be merely smelled to, by the whole immigrating household on the day of rest.

2258. With a little care and attention, a kitchen-garden, though small, might be rendered not only useful, but in fact, as ornamental as a modern grass carpet; and the same expense incurred to make the ground a labyrinth of sweets, might suffice to render it agreeable to the palate, as well as to the olfactory nerves, and that even without offending the most delicate optics.

2259. It is only in accordance with our plan to give the hint, and to record such novel points as may facilitate the proposed arrangement.

2260. It is one objection to the adoption of a kitchen garden in front of the dwelling, or in sight of the family apartments, that its very nature makes it rather an eye-sore than otherwise at all seasons.

2261. This, however, is an objection that may be readily got over by a little attention to neatness and good order, whilst the plants themselves, if judiciously attended to, and

the borders sown or planted with ranunculus, polyanthus, mignionette, &c., in succession, will really be ornamental.

2262. But then, in cutting the plants for use, the business must be done neatly, all useless leaves cleared from the ground, the roots no longer wanted taken up, and the ravages of insects to be guarded against by sedulous extirpation. It will also be found a great improvement, where space will admit of it, to surround the beds with neat espaliers, with fruit trees, or even gooseberry and currant bushes trained along them, instead of these being suffered to grow in a state of ragged wildness.

DRYING HERBS.

2263. Fresh herbs are preferable to dried ones, but as they cannot always be obtained, it is most important to dry herbs at the proper seasons :—

2264. *Basil* is in a fit state for drying about the middle of August.

2265. *Burret* in June, July, and August.

2266. *Chervil* in May, June, and July.

2267. *Elder Flowers* in May, June, and July.

2268. *Fennel* in May, June, and July.

2269. *Knotted Marjoram* during July.

2270. *Lemon Thyme* end of July, and through August.

2271. *Mint* end of June and July.

2272. *Orange Flowers* May, June, and July.

2273. *Orange Thyme* (a delicious herb), June and July.

2274. *Parsley* May, June, and July

2275. *Sage*, August and September

2276. *Summer Savory*, end of July and August.

2277. *Tarragon*, June, July, and August.

2278. *Thyme*, end of July and August.

2279. *Winter Savory*, end of July and August.

2280. These herbs always at hand will be a great aid to the cook.

2281. Herbs should be gathered on a dry day; they should be immediately well cleansed, and dried by the heat of a stove, or Dutch oven.

2282. The leaves should then be picked off, pounded and sifted, and put away for use.

PROPERTIES AND USES OF VEGETABLES.

2283. *Parsley* is very cooling and softening.

2284. *Catnip* is a warm herb, of a diaphoretic or sweating nature.

2285. *Pennyroyal* is much the same, only more powerful. It retains a very powerful pungent oil.

2286. *Spearmint* is pungent and hot, but of an astringent nature.

2287. *Calamint* is much the same, but not so strong.

2288. *Hoarhound* is very strengthening to the lungs, and is somewhat of a pectoral. It is excellent in a cough, or stoppage in the stomach.

2289. *Everlasting*, or *Indian Posey*, is a very balsamic

herb—healing and cooling, and excellent in salves or ointment.

2290. *Johnswort* is much the same.

2291. *Pea Balm* is a cooling and sweating herb, and is good in fevers and inflammations.

2292. *Chamomile* is a great restorative to the lungs, and promotes perspiration. It is good in salves and ointments to take away swellings.

2293. *Mayweed* is of a pectoral nature, and is good for a pain in the side.

2294. *Garden Coltsfoot* is a great restorative to the lungs, and is good in syrups for coughs.

2295. *Melilot* is good in salves and ointments for swellings and inflammations. It is mollifying and cooling.

2296. *Sage* is the greatest restorative to human nature of any herb that grows.

2297. *Bloodroot* is a very powerful emetic or purge: steeped in spirits, it will serve for an emetic; and boiled in fair water it serves as a purge.

2298. *Mandrake* root is an excellent physic, dried and pounded.

2299. *Cumfrey* and *Spikenard* are so well known that they need no describing.

2300. *Elecampane* is good in coughs, yet it is an astringent.

2301. *Cranesbill* is an astringent, and excellent in cankers.

2302. *Whiteroot* is of a physical nature, and is good to remove wind pent in the stomach, or part of the bowels.

2303. *Sassafras* root is good for the blood.

2304. So also are *Sarsaparilla, Horse Radish, Burdock roots, Elder roots.*

2305. *Hop roots,* and *Wild Coltsfoot* are good as pectorals.

2306. *White* and *Yellow Pond Lily roots,* the same.

2307. *Winter's Bark.*—This is the product of one of the the largest trees on Terra del Fuego. It is good in dropsy and scurvy.

2308. *Wild Jenton* is a strong cathartic, when boiled.

VEGETABLES TO CULTIVATE.

2309. *Artichoke.*—Sow early in the Spring, in rows three inches apart, or plant suckers.

2310. *Asparagus.*—Sow in April, in good rich soil.

2311. *Beans. English Dwarfs.*—Plant as early in the Spring as the ground will work.

2312. *Kidney Dwarfs.*—Plant from end of April to about 20th August.

2313. *Pole or Running.*—Plant beginning of May, and at intervals through the season.

2314. *Beets.*—Sow in drills, from early in the Spring till the middle of Summer. Leave the plants 6 to 8 inches apart in the drills.

2315. *Borecole* is an excellent green. Sow in Fall, either broadcast or in drills, as for Winter Spinach.

2316. *Brussels Sprouts* are cultivated for the small heads, which are attached to the stem. Sow in the middle of Spring, and treat as Winter Cabbage.

2317. *Brocoli* produces heads like cauliflower. Sow in seed bed about the middle of Spring. Transplant in rich ground when 8 or 12 inches high, and treat as Winter Cabbage.

2318. *Cabbage.*—For early cabbage, sow in Autumn, in seed beds. Protect during Winter; transplant early in the Spring. For late Cabbage, sow in seed bed, middle of Spring. Transplant early in Summer.

2319. *Cardoon* is much used for salads, soups, and stews. Treated much like Celery.

2320. *Cauliflower.*—Sow, for early, in seed beds, in Autumn; protect from frost, in cold frames, and transplant in rich ground after frost ceases. For late, manage as Brocoli.

2321. *Carrots* should be sown early in the Spring, in deep-dug and well-manured ground, in drills twelve or eighteen inches apart.

2322. *Celery* should be sown early in the Spring, in light rich moist soil. Transplant in trenches, highly manured, when about six inches high. Blanch by earthing up as they advance in growth.

2323. *Chervil.*—A small salad. Sow early in the Spring, and after heat of Summer.

2324. *Cress.*—Used as a salad. Sow very thick, in shallow drills, at intervals through the season.

2325. *Corn Salad.*—Used as a salad during the Winter and Spring. Sow thick, in drills, about 1st of September, and cover with straw on the approach of cold.

2326. *Cucumbers* should be planted first week in May, in hills four feet apart; prepare the ground by incorporating a shovelful of rotten dung in each hill.

2327. *Endive.*—Sow last of Spring to middle of Summer, in shallow drills.

2328. *Egg-Plant.*—Sow in hot-beds early in the Spring; transplant in rich warm ground late in the Spring, about 30 inches apart. Egg-plant seed will not vegetate freely without a substantial heat.

2329. *Lettuce* should be sown in seed bed, in the middle of September; protect the plants through the Winter, and early in the Spring transplant in rich ground; or sow in hot-beds, in March, and at intervals throughout the season.

2330. *Melon.*—Plant in hills, in light sandy earth, about the first week in May.

2331. *Mushroom Spawn* should be planted in hot-beds of dung, covered with earth.

2332. *Mustard.*—Sown like Cress, and used for a salad.

2333. *Nasturtium.*—Sow in May. The flowers and young leaves are used as a salad; the seed-pods, with foot-stalk, are gathered whilst green, and pickled as a substitute for capers.

2334. *Okra*, or *Gombo*, is one of the best of vegetables. Plant in May. The seed should be sown thick, as it is liable to rot in the ground. Very rich ground is required.

2335. *Onions* should be sown in drills, early in the Spring, in rich ground, thin, to stand two or three inches apart.

2336. *Parsley* should be sown early in the Spring. Soak in warm water before sowing.

2337. *Parsnip.*—Sow in drills 18 inches apart, in good and deep-dug ground, early in the Spring.

2338. *Peas.*—The best soil for Peas is a light loam. The early sorts require rich ground. Sow in drills as early in the Spring as the ground will work.

2339. *Pepper.*—Sow late in Spring, in drills, on a warm

border; or in a frame or hot-bed, in March; set out plants eighteen inches apart.

2340. *Pumpkin.*—The Mammoth Pumpkin has been grown to the enormous weight of 225 pounds. Plant early in May, in rich soil, in hills, eight to ten feet apart each way.

2341. *Radish.*—The early kinds should be sown as soon as the ground can be worked, in a sheltered situation.

2342. *Rhubarb* should be sown in Autumn or early in the Spring; when in the latter, transplant in the ensuing Spring to desired situation. The stems are used for tarts, and are fit for use before green fruit can be obtained, being a very desirable substitute.

2343. *Salsify*, or *Vegetable Oyster*, should be sown during April. The roots boiled, made into cakes with paste, and fried like oysters, much resembles them.

2344. *Spinach* should be sown as soon as the ground can be worked. The soil cannot be too rich for Spinach.

2345. *Squash.*—Cultivate same as Cucumber.

2346. *Tomato.*—Sow in hills three feet apart, on a warm border, early in the Spring. As the plants advance in growth give them support.

2347. *Turnip.*—For summer use, sow early in the Spring. For main crop, sow close of Summer. The Ruta Baga requires more time to mature, and should be sown at midsummer.

2348. *Aromatic and Sweet Herbs.*—Anise, Brazil, (sweet), Caraway, Coriander, *Fennel, *Lavender, Marygold, Pot, Marjorum, (sweet), *Sage, Summer Savory, *Winter Savory, *Thyme, *Mint, *Rosemary, Dill.

2349. Those marked with a * are perennial, and when once obtained, may be preserved for years. The others are annual.

FRUIT TREES AND FRUIT.

2350. *Fruits*, in a ripe and perfect state, are beneficial to health, if not eaten to excess.

2351. *Stunted* trees never become vigorous, nor when too long crowded in nurseries.

2352. In *Grafting*, 25 well placed are better than 100 grafts placed at random, and ten placed injudiciously will change the whole top of a tree in a few years, when 200 grafts may be so scattered as not materially to change the top of the tree or its fruit. Graft only on such as are sound and vigorous.

2353. *Haggling* off limbs and branches and leaving stumps on the trees, which rot off and let the water into the trunk, soon destroys the tree; therefore, always cut or saw off smooth, when the wound will heal and the bark grow over.

2354. *Sound*, vigorous trees, and no other, should be set out, as they take no more trouble or space than the worthless ones.

2355. *Budding* should only be done with fresh buds, on very small stocks of vigorous growth. Begin after sap starts, until 1st June. Later will do. Make incision like a T; raise the corners and insert the bud with as little of the wood as possible, and bandage, not too tight, for three weeks.

2356. *Scions* may be cut in February or March, before or at the time the buds begin to swell; or take grafts size of a pipe-stem, from bearing branches, not from side shoots nor the rank growth of the top. Put in earth one-third their length, keep from frost, and occasionally sprinkle, to prevent shriveling, but not so wet as to sprout them.

2357. *Composition.*—Resin 8 oz., beeswax, 3 oz.; melt up with lard, and work it like shoemaker's wax; for wounds made in pruning or grafting.

2358. *Split* the stock, drive in a wedge six or eight inches long,

open the split so as to admit the graft freely ; sharpen end of graft and insert, matching the wood of graft and wood of the stock ; remove the wedge carefully, and cover smooth over with composition, tight, to exclude air, and the sap will force its way to the graft.

2359. *Seed.*—Select from healthy trees, sound, ripe and fair fruit, and place in sand, in a cellar or other cool, damp place, until time to plant. If kept too dry, they seldom vegetate. Let the soil be good, well worked, not too wet ; cover up and press the ground moderately over. Plant in Fall, before the ground is frozen, or in Spring, soon as the ground can be worked.

2360. *Soil.*—Low, wet or marshy ground is not suitable. Soil appropriate for crops of grain, is also adapted to the cultivation of fruit trees, shrubs or vines. Occasional digging, mellowing the ground, keeping down underbrush and weeds, and manuring, are beneficial.

2361. *Cleanliness* is essential. Destroy all caterpillars, noxious worms and insects, and prune off all affected parts. Scrape off all rough, ragged bark and moss, and wash well with soap-suds or cover with a coat of limewash. Remove all suckers from the roots, side branches and excrescences.

2362. *Grubs*, which occasion disease, may be prevented by coating the roots and lower trunk, about July 1, with tar, train oil, or whitewash, and sprinkling a little lime, ashes, or soap-suds, on the ground around the tree. When seriously affected, dig the earth from the roots near the surface, and search thoroughly in the bark for the grub ; cleanse off the gum, &c., wash with ley or soap-suds, or rub dry ashes over them, and close up with good fresh earth. Doing this as occasion requires, will ensure health and vigor.

2363. *Slugs and Snails* are great enemies to every kind of garden-plant, whether flower or vegetable ; they wander in the night to feed, and return at daylight to their haunts ; the shortest and surest direction is, "Rise early, catch them, and kill them."—(See p. 281.)

2364. *Another way.*—Lay cabbage leaves about the ground, especially on the beds which they frequent. Every morning examine these leaves, and you will find a great many taking refuge beneath.

2365. *Caterpillars and Aphides.*—A garden syringe or engine, with a cap on the pipe full of very minute holes, will wash away these disagreeable visitors very quickly. You must bring the pipe close to the plant, and pump hard, so as to have considerable force on, and the plant, however badly infested, will soon be cleared without receiving any injury.—(See p. 277.)

2366. *Rake the Earth.*—Every time that you use the syringe or garden-engine, you must immediately rake the earth under the trees, and kill the insects you have dislodged, or many will recover and climb up the stems of the plants.

2367. *Grubs on Orchard Trees.*—Make a bonfire with dry sticks and weeds on the windward side of the orchard, so that the smoke may blow among the trees; you will destroy thousands; for the grubs have such an objection to smoke, that very little of it makes them roll themselves up and fall off; they must be swept up afterward.

2368. *Wasps* destroy a good deal of fruit, but every pair of wasps killed in spring saves the trouble and annoyance of a swarm in autumn.

2369. *Butterflies and Moths*, however pretty, are the worst enemies one can have in a garden; a single insect of this kind may deposit eggs enough to overrun a tree with caterpillars, therefore they should be destroyed at any cost of trouble.

2370. The only moth that you must spare, is the common black and red one; the grubs of this feed exclusively on groundsel, and are therefore a valuable ally of the gardener.

2371. *Earwigs* are very destructive insects; their favorite food is the petals of roses, pinks, dahlias, and other flowers.

2372. *To kill Earwigs.*—They may be caught by driving

stakes into the ground, and placing on each an inverted flower-pot; the earwigs will climb up and take refuge under it, when they may be taken out and killed.—(See p. 279.)

2373. Or very deep holes may be made in the ground with a crowbar, into these they will fall, and may be destroyed by boiling water.

2374. *Toads* are among the best friends the gardener has; for they live almost exclusively on the most destructive kinds of vermin.

2375. *The Rose Slug.*—A new and sure mode to destroy these insects, either when as a fly laying its eggs, or as a slug, is the following:—

2376. *Whale Oil Soap*, dissolved at the rate of two pounds to fifteen gallons of water.

2377. *Mode of Preparation.*—Take whatever quantity of soap you wish to prepare, and dissolve it in boiling water, about one quart to a pound; in this way strain it through a fine wire or hair sieve, which takes out the dirt, prevents its stopping the valves of the engine, or the nose of the syringe; then add cold water to make it the proper strength.

2378. *How to use it.*—Apply it to the rose-bush with a hand engine or syringe, with as much force as practicable, and be sure that every part of the leaves is well saturated with the liquid. What falls to the ground in application, will do good in destroying the worms and enriching the soil, and from its trifling cost, it can be used with profusion.

2379. *The cost.*—A hogshead of 136 gallons costs forty-five cents—not quite four mills per gallon. Early in the morning, or in the evening, is the proper time to apply it to the plants.

2380. *Mildew* on the Gooseberry, Peach, Grape-vine, &c., is checked and entirely destroyed by a weak dressing of the solution.

2381. *The Canker Worm.*—Laying soap oil on the trunk and branches of the tree, at the consistency of thick paint, destroys the brown, scaly insect on the bark, and gives the tree a smooth, glossy, and healthy appearance.

2382. *To free Plants from Leaf-Lice.*—Mix one ounce of flowers of sulphur with one bushel of sawdust; scatter this over the plants infected with these insects, and they will soon be freed, though a second application may possibly be necessary.

2383. *Keeping Fruits.*—The three best of eight different modes fairly tried, are, 1, covering in pure dry sand; 2, in dry fern; 3, in a deal box buried in the earth. In all cases to be kept cool.

2384. *Sunflower* yields 140 bushels per acre, and each bushel one gallon of good oil. Its leaves furnish provender; its seeds, food for poultry and hogs. It thrives on poor soils.

2385. *To prepare a cheap Hortus Siccus.*—All the small plants should be expanded under water, in a plate, on a piece of writing-paper. In this state they will assume their natural form and position. Then withdraw the paper with the plant gently from the water, and place them between sheets of blotting-paper, and press them with a book or flat board. When dry, it may be placed on writing-paper.

PART X.

PERSONAL MATTERS.

Dress of Ladies—Dress of Gentlemen—Manners—Etiquette of Society—Dinner Parties—Courtship—Marriage—The Ceremony—After Marriage—Social Intercourse—"Our House," etc.

2386. *Importance of Dress.*—Attention to personal appearance is a human duty as well as a required observance in civilized society.

2387. The following rules will be found useful in guiding the judgment and taste of those who desire to dress well.

DRESS OF LADIES.

2388. A young lady should always be neatly attired. A fresh-looking and well-fitting dress is more important than rich materials or showy ornaments.

2389. Never furbish up old finery, if you wish to appear really the lady. A clean, soft, white muslin gown is far more genteel than a tarnished brocade.

2390. *Colors and Complexions.*—The great art, as regards colors of dress, is to enhance the tints of the complexion, care being taken to let the flesh appear of a healthy natural hue, and to avoid wearing those colors which heighten or destroy either the red, yellow, or white, in the natural flesh tints.

2391. *Primitive Colors.*—Out of three primitive colors, red, blue, and yellow, there are endless mixtures and variations, and some of these can skillfully be adapted to any complexion; but to do so, these two rules must be observed: the rule of Harmony and of judicious Contrast.

2392. *Decided Colors,* or colors without mixture, are very unbecoming. A lady all *blue* in dress would be more disagreeable than a real *bleu.*

2393. *Red,* and its dark variations, may be worn by dark persons, and will harmonize with their complexion.

2394. *Crimson and brilliant red* are vulgar and unsuitable, but purple and dark maroon, worn by brunettes, and persons of a dark complexion, are both becoming and genteel, either in evening or winter dresses.

2395. *Blue* is a becoming color to fair faces and blue eyes. It also looks well worn by brunettes, when the wearer is youthful.

2396. *Light blue* is a beautiful color for spring dresses; dark blues look better in the autumn and winter.

2397. *Red Colors.—Light red and pink*, approaching flesh tints, are becoming both to dark and to fair; to the former especially, because they, by contrast, set off the complexion.

2398. Fair persons venturing upon such dresses or trimmings by daylight, should have clear and excellent complexions, or the brightness of the color, from a similarity of tint, will make their faces appear dirty and clouded.

2399. *Chocolate colors*, and warm browns partaking of red, may be worn by either fair or dark persons, provided they be not too pale, in which case the contrast will render the face chalky or death-like.

2400. *Yellow* in dress, as well as orange, is also more becoming to dark than to fair persons.

2401. *Primrose* is becoming to fair persons. The trimmings of this color, the flowers and ribbons, should be violet, such contrast being agreeable to art and nature.

2402. *Maize* color is becoming to all complexions, especially to those which are brilliant.

2403. *Grain* is more becoming to fair than to dark persons, because in the fair complexion, brilliancy and depth of color are more frequently found.

2404. *Pale green* should never be worn by the dark, it rendering them sickly and cadaverous in look. To those of a fair and brilliant complexion it is most becoming.

2405. *Trimmings.*—For trimmings and flowers ladies cannot do better than to study nature, there being in the leaves of flowers every imaginable tint of green, whilst the flowers themselves are various in their hue.

2406. *Artificials* should be few, and perfectly arranged. A load of flowers is a burden, not a beauty

2407. The most elegant dresses are black or white.

2408. A vulgar girl wears bright and glaring colors, fantastically made, a large flaring, red, yellow, or sky-blue hat, covered with a rainbow of ribbons, and all the rings and trinkets she can load upon her.

2409. In any assemblage, the most plainly-dressed woman is sure to be the most lady-like and attractive. Neatness is better than richness, and plainness better than display.

2410. It is a general rule, applicable to both sexes, that persons are the best dressed when you cannot remember how they were dressed. Avoid every thing out of the way, uncommon, or grotesque.

2411. Single ladies dress less in fashionable society than married ones; and all more plainly and substantially for walking or traveling, than on other occasions.

2412. Common modesty should prevent indecent exposure of the shoulders and bosom.

2413. *Tight Lacing.*—No woman who laces tight can have good shoulders, a straight spine, good lungs, sweet breath, or is fit to be a wife and mother.

2414. Can it be a pleasant sight to behold a woman cut in two in the middle, as it were, like a wasp? On the contrary, it is as shocking to the eye as it is painful to the imagination.

2415. Every thing that confines and lays nature under a restraint is an instance of bad taste. This is as true in regard to the ornaments of the body as to the embellishments of the mind.

2416. Life, health, reason, and convenience, ought to be taken first into consideration.

2417. Gracefulness cannot subsist without ease; delicacy is not debility; nor must a woman be sick in order to please.

2418. The distinction of the sexes, notwithstanding that it is so prominent and marked, still requires a distinctive dress. This has generally, by all nations, civilized or savage, been conceded.

2419. This difference has been so permanent, that any attempt to lessen it—and there have been many—has failed, and must fail whenever attempted.

2420. *Robes.*—The outer garment of woman is, and has been for centuries, the robe or gown, and upon the proper choice, make, and disposition of this, and its concomitants, depends the elegance or inelegance of the wearer.

2421. The gown should fall gracefully from the hips, as free as possible from the odious "bustle" or "hoop." It should fall in long full folds, and expand gradually to the feet, which it should touch, but not entirely cover.

2422. *Flounces* should only be worn by those of a tall, graceful figure, and then they should be made of a light material, gauze, muslin, or of stuff akin to it, so that they fall in gracefully with the outline of the dress. When made of any rich stuff, which stands out stiffly, they break the graceful flow of the dress.

2423. Flounces, by marking the height, at regular intervals, take away from it, and make a short figure look shorter. For this reason, short persons should not wear stripes running in parallel rings round the dress. Perpendicular stripes upon a dress make the wearer look taller, like the flutes in a composite.

2424. The rules which we have given for the color of the dress, must of course apply to the covering for the head; the colors must, to look well, contrast or harmonize with the complexion.

2425. Texture, material, and pattern, should suit, not only the taste, but also the purse. There are few greater evils in this country than an inordinate passion for dress.

2426. No one looks so well dressed as those who are dressed properly, neatly, and whose attire sets them at their ease. A lady who is so over-dressed as to be constantly afraid of spoiling her gown, can never be graceful, since she cannot be at her ease.

2427. *The hair* should always be neatly brushed and arranged.

2428. *Ringlets* make round faces look longer, and more oval; plain bands make the face which is too long, lose part of that length. This should be studied. It is manifestly absurd to render oneself hideous merely to follow the fashion.

2429. The dress of the foot is important both for beauty and health.

2430. Thus, a thin shoe in winter would be vulgar, because useless and dangerous to the wearer's health, and a thick boot in summer would be *gauche* and vulgar.

2431. *Boots and shoes* should be well, nay, scientifically made. The foot should be fitted well, but not compressed.

2432. Modern boots and shoes are therefore often made narrow, just where they should be wide; and the foot, instead of being beautiful in shape, and graceful in its action, becomes long, narrow, distorted, and ungraceful when used.

2433. *Gloves* must be fresh and well-fitting to make the dress perfect.

2434. Ladies dresses should be chosen so as to produce an agreeable harmony.

2435. Never put on a dark-colored bonnet with a light spring costume.

2436. Avoid uniting colors which will suggest an epigram; such as a straw-colored dress with a green bonnet.

2437. The arrangement of the hair is most important.

2438. Bands are becoming to faces of a Grecian caste.

2439. Ringlets better suit lively and expressive heads.

2440. Whatever be your style of face, avoid an excess of lace, and let flowers be few and choice.

2441. In a married woman, a richer style of ornament is admissible

2442. Costly elegance for the married—for the young girl, a style of modest simplicity.

2443. The most elegant dress loses its character if it is not worn with grace.

2444. Young girls have often an air of constraint, and their dress seems to partake of their want of ease.

2445. In speaking of her toilet, a woman should not convey the idea that her whole skill consists in adjusting tastefully some trifling ornaments.

2446. A simple style of dress is an indication of modesty.

2447. *Neatness.*—The hands should receive special attention. They are the outward signs of general cleanliness. The same may be said of the face, the neck, the ears, and the teeth.

2448. The cleanliness of the system generally, and of bodily apparel, pertains to Health, and will be treated of under this head.

2449. *The Handkerchief.*—There is considerable art in using this accessory of dress and comfort.

2450. Avoid extreme patterns, styles, and colors

2451 Never be without a handkerchief.

2452. Hold it freely in the hand, and do not roll it into a ball. Hold it by the centre, and let the corners form a fan-like expansion.

2453. Avoid using it too much. With some persons the habit becomes troublesome and unpleasant.

2454. *A word to Young Ladies.*—If you have blue eyes, you need not languish.

2455. If black eyes, you need not stare.

2456. If you have pretty feet, there is no occasion to wear short petticoats.

2457. If you are doubtful as to that point, there can be no harm in letting them be long.

2458. If you have good teeth, do not laugh for the purpose of showing them.

2459. If you have bad ones, do not laugh less than the occasion may justify.

2460. If you have pretty hands and arms, there can be no objection to your playing on the harp, if you play well.

2461. If they are disposed to be clumsy, work tapestry.

2462. If you have a bad voice, speak in a rather low tone.

2463. If you have the finest voice in the world, never speak in a high tone.

2464. If you dance well, dance but seldom.

2465. If you dance ill, never dance at all.

2466. If you sing well, make no previous excuses.

2467. If you sing indifferently, hesitate not a moment when

you are asked, for few people are judges of singing, but every one is sensible of a desire to please.

2468. If you would preserve beauty, rise early.

2469. If you would preserve esteem, be gentle.

2470. If you would obtain power, be condescending.

2471. If you would live happy, endeavor to promote the happiness of others.

DRESS OF A GENTLEMAN.

2472. Since dress is, with the world, the outward sign of both character and condition: and since it costs no more to dress well than ill, and is not very troublesome, every one should endeavor to do the best that his circumstances will allow.

2473. *The Shirt.*—A clean, unrumpled shirt, coarse or fine, cotton or linen, as you can afford, is of the first importance. If the choice is between a fine shirt or a fine coat, have the shirt by all means.

2474. *Fine Linen,* and a good hat, gloves and boots are evidences of the highest taste in dress.

2475. A gentleman walking should always wear gloves, this being one of the characteristics of good breeding.

2476. Upon public and State occasions, officers should appear in uniform.

2478. A black coat and trowsers are indispensable for a visit of ceremony, an entertainment, or a ball.

2479. The white or black waistcoat is equally proper in these cases.

2480. Yellow or white gloves are worn in the ball-room.

2481. A neat exterior, equally free from extravagance and poverty, almost always proclaims a right-minded man.

2482. To dress appropriately, and with good taste, is to respect yourself and others.

2483. *Neatness.*—A well-bred man may be ever so reduced in his wardrobe—his clothes may be coarse and threadbare, but he seldom wears a coarse, and never a dirty shirt.

2484. *The Boots.*—Boots are now men's common wear on all occasions, varying in elegance for different purposes. They should always be clean, and invariably well blackened and polished.

2485. *The Hat.*—Make a point of buying a good hat. One proper fur hat, worth four or five dollars, when a year old, looks more respectable than a silk one bought yesterday.

2486. Of the trowsers little need be said. When full at the bottom they serve to hide a large foot. If colored trowsers are worn, those patterns should be chosen which conform to the rules of taste. Bars running across the legs should be avoided, and also all large staring patterns.

2487. *The Vest* allows of some fancy, but beware of being too fanciful. A black satin is proper for any person or any occasion. Nothing is more elegant than pure white. Some quiet colors may be worn for variety, but beware of every thing staring or glaring, in materials or trimmings.

2488. Avoid all singularity in dress; never wear gaudy waistcoats, out-of-the-way hats, or coats of the extreme of "sporting fashion:" such things are positively odious.

2489. We may add a few general maxims, applied to both sexes.

2490. "All affectation in dress," says Chesterfield, "implies a flaw in the understanding." One should therefore avoid being singular, or eccentric.

2491. Never dress against any one. Choose those garments which suit you, and look well upon you, perfectly irrespective of the fact that a lady or gentleman in the same village or street may excel you.

2492. When dressed for company, strive to appear as easy and natural as if you were in undress.

2493. Dress according to your age. It is both painful and ridiculous to see an old lady dressed as a belle of four-and-twenty; or an old fellow, old enough for a grandfather, affecting the costume and the manners of a *beau*.

2494. Young men should be *well* dressed. Not foppishly, but neatly and well. An untidy person at five-and-twenty, degenerates, very frequently, into a sloven and a boor at fifty.

2495. Be not too negligent, nor too studied, in your attire.

2496. Let your behavior and conversation suit the clothes you wear, so that those who know you may feel that, after all, dress and external appearance is the least portion of a LADY OR GENTLEMAN.

MANNERS.

2497. It is sometimes objected to books upon etiquette, that they cause those who consult them to act with mechanical restraint, and to show in society that they are governed by arbitrary rules, rather than by an intuitive perception of what is graceful and polite.

2498. This objection is unsound, because it supposes that people who study the theory of etiquette, do not also exercise their powers of observation in society, and obtain, by their intercourse with others, that freedom and ease of deportment, which society alone can impart.

2499. Books upon etiquette are useful, inasmuch as that they expound the laws of polite society. Experience alone,

however, can give effect to the precise *manner* in which those laws are required to be observed.

2500. Whatever objections may be raised to the teachings of works upon etiquette, there can be no sound argument against a series of simple and brief hints, which shall operate as precautions against mistakes in personal conduct.

2501. Avoid intermeddling with the affairs of others. This is a most common fault.

2502. A number of people seldom meet but they begin discussing the affairs of some one who is absent. This is not only uncharitable but positively unjust. It is equivalent to trying a *cause in the absence of the person implicated.*

2503. Even in the criminal code, a prisoner is presumed to be innocent until he is found guilty. Society, however, is less just, and passes judgment without hearing the defense.

2504. Depend upon it, as a certain rule, *that the people who unite with you in discussing the affairs of others, will proceed to scandalize you the moment that you depart.*

2505. Be consistent in the avowal of principles. Do not deny to-day, that which you asserted yesterday. You may fancy that you gain favor by subserviency; but so far from gaining favor, you lose respect.

2506. Avoid falsehood. There can be found no higher virtue than that of truth.

2507. Be honest. Not only because "honesty is the best policy," but because it is a duty to God and to man.

2508. Avoid idleness—it is the parent of many evils. Can you pray, "Give us this day our daily bread," and not hear the reply, "Do thou this day thy daily duty?"

2509. Avoid telling idle tales, which is like firing arrows in the dark; you know not into whose heart they may fall.

2510. Avoid talking about yourself; praising your own works; and proclaiming your own deeds. If they are good, they will proclaim themselves; if bad, the less you say of them the better.

2511. Be kind in little things.

2512. The true generosity of the heart is more displayed by deeds of minor kindness, than by acts which may partake of ostentation.

2513. Reason is given for man's guidance. Passion is the tempest by which reason is overthrown. Under the effects of passion, man's mind becomes disordered, his face disfigured, his body deformed.

2514. A moment's passion has frequently cut off a life's friendship, destroyed a life's hope, imbittered a life's peace, and brought unending sorrow and disgrace.

2515. Avoid pride. If you are handsome, God made you so; if you are learned, some one instructed you; if you are rich, God gave you what you own.

2516. The best men throughout all history, have been the most humble.

2517. Affectation is a form of pride. It is, in fact, pride made ridiculous and contemptible. Affectation is usually the fault of weak people.

2518. Avoid swearing. An oath is but the wrath of a perturbed spirit.

2519. It is *mean.* A man of high moral standing would rather treat an offense with contempt, than show his indignation by an oath.

2520. It is *vulgar:* altogether too low for a decent man.

2521. It is *cowardly:* implying a fear of either of not being believed or obeyed.

2522. It is *ungentlemanly.* A gentleman, according to Webster, is a *genteel man*—well-bred, refined.

2523. It is *indecent:* offensive to delicacy, and extremely unfit for human ears.

2524. It is *foolish.* "Want of decency is want of sense."

2525. It is *abusive*—to the mind which conceives the oath, to the tongue which utters it, and to the person at whom it is aimed.

2526. It is *venomous,* showing a man's heart to be as a nest of vipers; and every time he swears, one of them starts out from his head.

2527. It is *contemptible*—forfeiting the respect of all the wise and good.

2528. It is *wicked:* violating the Divine law, and provoking the displeasure of Him who will not hold him guiltless who takes his name in vain.

2529. Be a gentleman. Swear not at all.

2530. Moderation, decorum, and neatness, distinguish the gentleman; he is at all times affable, diffident, and studious to please. Intelligent and polite, his behavior is pleasant and graceful.

2531. Appear only to be a gentleman, and its shadow will bring upon you contempt; be a gentleman, and its honors will remain even after you are dead.

2532. The foregoing remarks may be said to apply to the moral conduct, rather than to the details of personal manners.

2533. Great principles, however, suggest minor ones; and hence from the principles laid down, many hints upon personal behavior may be gathered.

2534. Be hearty in your salutations.

2535. Be true in your professions.

2536. Discreet and sincere in your friendships.

2537. Like to listen rather than to talk.

2538. Behave, even in the presence of your relations, as though you felt respect to be due to them.

2539. In society never forget that you are but one of many.

2540. Visiting a friend, conform to the rules of his home.

2541. Lean not upon his tables, nor rub your feet against his chairs.

2542. Pry not into letters that are not your own.

2543. Pay unmistakable respect to ladies everywhere.

2544. Beware of foppery and of silly flirtation.

2545. In public places, be not pertinacious of your rights.

2546. Find pleasure in making concessions.

2547. Speak distinctly.

2548. Look at the person to whom you speak.

2549. When you have spoken, give him an opportunity to reply.

2550. Avoid drunkenness as you would a curse; and modify all appetites, especially those that are acquired.

2551. Dress well, but not superfluously.

2552. Be neither like a sloven, nor like a stuffed model.

2553. Keep away all uncleanly appearances from the person. Let the nails, the teeth, and in fact, the whole system

receive *salutary* rather than *studied* care. But let these things receive attention at the toilet—not elsewhere.

2554. Avoid displaying excess of jewelry. Nothing looks more effeminate upon a man.

2555. Every one of these suggestions may be regarded as the centre of many others, which the earnest mind can not fail to discover.

2556. Avoid envy, for it can not benefit you, nor can it injure those against whom it is cherished.

2557. Avoid disputation, for the mere sake of argument.

2558. Be sociable; avoid reserve in society.

2559. Remember that the social elements, like the air we breathe, are purified by motion. Thought illumines thought, and smiles win smiles.

2560. Be punctual. One minute too late has lost many a golden opportunity. Besides which, the want of punctuality is an affront offered to the person to whom your presence is due.

2561. Be polite. Politeness is the poetry of conduct—and like poetry it has many qualities.

2562. Let not your politeness be too florid, but of that gentle kind which indicates refined nature.

2563. It is true, indeed, that we should not dissemble and flatter in company; but a man may be very agreeable, strictly consistent with truth and sincerity, by a prudent silence where he can not concur, and a pleasing assent where he can.

2564. Now and then you meet with a person so exactly formed to please, that he will gain upon every one that hears or beholds him; this disposition is not merely the gift of nature, but frequently the effect of much knowledge of the world, and a command over the passions.

2565. *Ceremonies.*—All ceremonies are in themselves very silly things; but, yet a man of the world should know them. They are the outworks of manners and decency, which would be too often broken in upon, if it were not for that defense which keeps the enemy at a proper distance.

2566. *Therefore* always treat fools and coxcombs with great ceremony, true good-breeding not being a sufficient barrier against them.

2567. *Agreeableness.*—The true art of being agreeable is to appear well-pleased with all the company, and rather to seem well entertained with them than to bring entertainment to them.

2568. Eschew personalities and personal adventures; nothing is more tedious than one who is addicted to talk prodigiously about himself.

2569. Never, in a mixed company, speak disrespectfully of woman.

2570. Treat your parents with the greatest possible respect. Restrain yourself even from smiling at their foibles, or their weaknesses. Obey them, even should you yourself be of mature age.

2571. To restrain your desire for indulgences is not only well bred, but it is heroic; much good results from it. Watch well the little sins, and you will escape those which are more gross. This applies, not only to morals, but to the minor morals—the manners.

2572. A badly-tempered man, and he who has no command over his passions, will rarely become a polished gentleman.

2573. If you have children, be careful to behave well before them. Remember that the child naturally and easily imitates the actions of his parent, be they good or evil.

2574. Any thing which is essentially out of place is vulgar.

Thus, an over familiarity with servants is vulgar, because it is out of place, and can only lead to a bad result.

RULES OF ETIQUETTE.

2575. In walking with a gentleman, the step of the lady must be lengthened, and his shortened, to prevent the hobbling appearance of not keeping step.

2576. Of course, the conversation of a stranger, beyond asking a necessary question, must be considered as a gross insult, and repelled with proper spirit.

2577. Having dressed yourself, pay no further attention to your clothes. Few things look worse than a continual fussing with your attire.

2578. Never scratch your head, pick your teeth, clean your nails, or worse than all, pick your nose in company; all these things are disgusting. Spit as little as possible, and never upon the floor.

2579. Do not lounge on sofas, nor tip back your chair, nor elevate your feet.

2580. If you are going into the company of ladies, beware of onions, spirits, and tobacco.

2581. If you can sing or play, do so at once when requested, without requiring to be pressed, or make a fuss.

2582. On the other hand, let your performance be brief, or, if ever so good, it will be tiresome.

2583. When a lady sits down to the pianoforte, some gentleman should attend her, arrange the music-stool, and turn over the leaves.

2584. Do not make yourself too conspicuous in those attentions. The lady, not the gentleman, is the performer.

2585. Never tattle, nor repeat in one society any scandal or personal matter you hear in another.

2586. Give your own opinion of people, if you please, but never repeat that of others.

2587. Meeting an acquaintance among strangers in the street or a coffee-house, never address him by name. It is vulgar and annoying.

2588. It is not considered fashionable to introduce two persons who accidentally meet in your parlor, and who are paying you a morning visit.

2589. Never introduce in the street, unless the third person joins and walks with you. You may make an exception to this rule when the parties are mutually desirous of knowing one another.

2590. When a gentleman is presented to a lady, if she is in her own house and desires to welcome him, she may shake hands with him; but on any other occasion, unless the gentleman is venerable, or the bosom friend of the husband or father, this practice is reprehensible.

2591. A lady is at liberty either to take another lady or a gentleman to pay a morning visit to a friend, without asking permission; but she should never allow a gentleman the same liberty.

2592. A lady who is invited to an evening assembly may always request a gentleman who has not been invited by the lady of the house, to accompany her.

2593. If you are walking with one lady, do not stop to converse with others who are unknown to her; as she must necessarily feel unpleasant; but, if with a gentleman, you may do as you please.

2594. *Visits and Presentations.*—Friendship calls should be made in the forenoon, and require neatness, without costliness of dress.

2595. Calls to give invitations to dinner parties, or balls, should be very short, and should be paid in the afternoon

2596. Visits of condolence require a grave style of dress.

2597. A formal visit should never be made before noon. If a second visitor is announced, it will be proper for you to retire, unless you are very intimate, both with the host and the visitor announced; unless, indeed, the host expresses a wish for you to remain.

2598. Visits after balls or parties should be made within a month.

2599. In the latter, it is customary to enclose your card in an envelope, bearing the address outside. This may be sent by post, if you reside at a distance. But, in the neighborhood, it is polite to send your servant, or to call. In the latter case, a corner should be turned down.

2600. Scrape your shoes and use the mat.

2601. When a new visitor enters a drawing-room, if it be a gentleman, the ladies bow slightly; if a lady, the guests rise.

2602. Hold your hat in your hand, unless requested to place it down. Then lay it beside you.

2603. The last arrival in a drawing-room takes a seat left vacant near the mistress of the house.

2604. A lady is not required to rise on receiving a gentleman, nor to accompany him to the door.

2605. When your visitor retires, ring the bell for the servant. You may then accompany your guest as far toward the door as the circumstances of your friendship seem to demand.

2606. Request the servant, during the visit of guests, to be ready to attend to the door the moment the bell rings.

2607. When you introduce a person pronounce the name

distinctly, and say whatever you can to make the introduction agreeable. Such as "an old and valued friend," a "school-fellow of mine," "an old acquaintance of our family."

2608. Never stare about you in a room as if you were taking stock.

2609. The gloves should not be removed during a visit.

2610. Be hearty in your reception of guests. And where you see much diffidence, assist the stranger to throw it off.

2611. A lady does not put her address on her visiting card.

2612. In all your associations, keep constantly in view the adage, "too much freedom breeds contempt."

2613. Never be guilty of practical jokes; if you accustom yourself to them, it is probable you will become so habituated as to commit them upon persons who will not allow of such liberties: I have known a duel to arise from a slap on the back.

2614. If there be another chair in the room, do not offer a lady that from which you have just risen.

2615. Always suspect the advances of any person who may wish for your acquaintance, and who has had no introduction: circumstances may qualify this remark, but as a general principle, acquaintances made in a public room or place of amusement are not desirable.

2616. Never converse while a person is singing; it is an insult not only to the singer, but to the company.

2617. The essential part of good breeding is the practical desire to afford pleasure, and to avoid giving pain. Any man possessing this desire, requires only opportunity and observation to make him a gentleman.

2618. Always take off your hat when handing a lady to her carriage, or the box of a theatre, or a public room.

2619. If, in a public promenade, you pass and repass persons of your acquaintance, it is only necessary to salute them on the first occasion.

2620. Do not affect singularity of dress by wearing any thing that is so conspicuous as to demand attention; and particularly avoid what I believe I must call the ruffian style.

2621. Never lose your temper at cards, and particularly avoid the exhibition of anxiety or vexation at want of success.

2622. If you are playing whist, not only keep your temper, but hold your tongue; any intimation to your partner is decidedly ungentlemanly.

2623. Let presents to a young lady be characterized by taste, not remarkable for intrinsic value.

2624. Except under very decided circumstances, it is both ungentlemanly and dangerous to *cut* a person: if you wish to rid yourself of any one's society, a cold bow in the street, and particular ceremony in the circles of your mutual acquaintance, is the best mode of conduct to adopt.

2625. Never introduce your own affairs for the amusement of a company; it shows a sad want of mental cultivation, or excessive weakness of intellect.

2626. Recollect, also, that such a discussion cannot be interesting to others, and that the probability is that the most patient listener is a complete gossip, laying the foundation for some tale to make you appear ridiculous.

2627. When you meet a gentleman with whom you are acquainted, you bow, raising your hat slightly with the left hand, which leaves your right at liberty to shake hands if you stop.

2628. If the gentleman is ungloved, you must take off yours, not otherwise.

2629. Meeting a lady, the *rule* is that she should make the

first salute, or at least indicate by her manner that she recognizes you.

2630. Your bow must be lower, and your hat carried further from your head : but you never offer to shake hands ; that is *her* privilege.

2631. The right, being the post of honor, is given to superiors and ladies, except in the street, when they take the wall, as furthest from danger from passing carriages, in walking with or meeting them.

2632. In walking with a lady, you are not bound to recognize gentlemen with whom she is not acquainted, nor have they, in such a case, any right to salute, much less to speak to you.

2633. Whenever or wherever you stand, to converse with a lady, or while handing her into or out of a carriage, keep your hat in your hand.

2634. Should her shoe become unlaced, or her dress in any manner disordered, fail not to apprize her of it, respectfully, and offer your assistance. A gentleman may hook a dress or lace a shoe with perfect propriety, and should be able to do so gracefully.

2635. Whether with a lady or gentleman, a street talk should be a short one ; and in either case, when you have passed the customary compliments, if you wish to continue the conversation, you must say, "Permit me to accompany you."

2636. Don't sing, hum, whistle, or talk to yourself, in walking. Endeavor, besides being well dressed, to have a calm good-natured countenance. A scowl always begets wrinkles.

2637. It is best not to smoke at all in public, and none but a ruffian in grain will inflict upon society the odor of a bad cigar, or that of any kind on ladies.

2638. Ladies are not allowed, upon ordinary occasions, to

take the arm of any one but a relative or an accepted lover in the street, and in the day time ; but in the evening—in the fields, or in a crowd, wherever she may need protection—she should not refuse it.

2639. The lady should pass her hand over the gentleman's arm merely, but should not walk at arm's length apart, as country girls sometimes do.

DINNER PARTIES.

2640. We will begin with the invitation, the reply to which you will make at once, for obvious reasons, and address it to the mistress of the house.

2641. If you accept, arrive at the house very punctually, not too late nor too early, both are inconvenient, but the latter irreparable. Get there, therefore, a little before the time, and wait till the precise moment before knocking.

2642. If you arrive by some accident a great deal too late, do not disturb the party by going in ; send your card and an apology from some neighboring place.

2643. The host, if attentive, will point out to gentlemen the ladies whom he wishes them to conduct to table—always follow his directions.

2644. If either at dinner or at supper he should offer you the place of honor, never refuse it. To do so, as some do, is to show a pretended modesty ; it keeps the rest of the company standing, and is vulgar in the extreme.

2645. The great requisites in the office of host are to be a good carver (if they carve at table), a calm temper, and a wish to place every one perfectly at his ease.

2646. The company should be so arranged that each lady will have some gentleman at her side, to assist her. Of course, it is every gentleman's duty, first of all to see that ladies near him are attended to.

2647. The lady of the house sits at the head of the table, and the gentleman opposite, at the foot. The place of honor for gentlemen, is on each side of the mistress of the house—for ladies, on each side of the master.

2648. When napkins are provided, they are at once carefully unfolded, and laid on the knees.

2649. Observe, if grace is to be said, and keep a proper decorum. If soup is served, take a piece of bread in the left hand, and the spoon in the right, and sip noiselessly from the side of the spoon.

2650. Do not take two plates of the same kind of soup, and never tip up the plate.

2651. When regular courses are served, the next dish is fish. If silver or wide-pronged forks are used, eat with the fork in the right hand—the knife is unnecessary.

2652. If dishes are carved by the servants, they must be taken to a sideboard from the proper position on the table, as they are required.

2653. Take whatever is given you if you intend to eat it; do not offer it to your neighbor, and begin at once to eat. The stiff formality of waiting till, as it were, all have a fair start, is vulgar in the extreme.

2654. Attend to the wants of the lady who sits next to you, but do not watch her plate or use any offensive vulgarism.

2655. The host should never recommend or eulogize any particular dish; his guests will take it for granted that any thing found at his table is excellent.

2656. The host must not relinquish his knife or fork till his guests have finished.

2657. It is not usual to drink wine with any of the company present; if you, however, find it the custom where you dine,

adopt it at once. Champagne is drunk between the meats and the dessert.

2658. Never address a servant, nor ever speak *of* one at dinner.

2659. Should a gentleman send you wine at a public table, or ask the honor of a glass with you, observe when he raises his glass, and do the same, bowing, whether you drink or not.

2660. As a general rule, in helping any one at table, never use a knife when you can use a spoon.

2661. If at dinner you are requested to help any one to sauce, do not pour it over the meat or vegetables, but on one side.

2662. If you should have to carve and help a joint, do not load a person's plate—it is vulgar; also in serving soup, one ladleful to each plate is sufficient.

2663. Eat peas with a dessert spoon, and curry also. Tarts and puddings are to be eaten with a spoon.

2664. After the dinner, a rose-water dish is passed round; dip a corner of your napkin in it, and refresh your mouth and hands. Finger-glasses are not in vogue.

2665. Be careful not to drink too much wine; and join the ladies in the drawing-room as quickly as possible.

2666. Ladies, although allowed a great latitude of dress at dinner-parties, should never be extravagantly fine.

BALLS AND EVENING PARTIES.

2667. An invitation to a ball should be given *at least* a week beforehand.

2668. Upon entering, first address the lady of the house; and after her, the nearest acquaintances you may recognize in the house.

2669. If you introduce a friend, make him acquainted with the names of the chief persons present. But first present him to the lady of the house, and to the host.

2670. Appear in full dress.

2671. Always wear gloves.

2672. Do not wear rings on the outside of your gloves.

2673. Avoid an excess of jewelry.

2674. Do not select the same partner frequently.

2675. Distribute your attention as much as possible.

2676. Pay respectful attention to elderly persons.

2677. Be cordial when serving refreshments, but not importunate.

2678. If there are more dancers than the room will accommodate, do not join in every dance.

2679. In leaving a large party, it is unnecessary to bid farewell, and improper to do so before the guests.

2680. A Paris card of invitation to an evening party usually implies that you are invited for the season.

2681. The host and hostess should look after their guests, and not confine their attentions. They should, in fact, assist those chiefly who are the least known in the room.

2682. Avoid political and religious discussions. If you have a "hobby," keep it to yourself.

2683. After dancing, conduct your partner to a seat.

2684. Resign her as soon as her next partner advances.

COURTSHIP AND MARRIAGE.

2685. No union should be undertaken until both of the contracting parties are fully acquainted with each other's disposition.

2686. If either man or woman are subject to indulge in any foible, or known vice, such as irritability, idleness, love of scandal, drunkenness, or worse, he or she should not marry till that vice is conquered.

2687. When before union there is an unreasonable, absurd, and romantic degree of affection, that marriage will probably be an unhappy one.

2688. When a woman knows a man to be addicted to any known self-indulgence, or to that which the world too frequently calls pleasure, she should discountenance him.

2689. Position in society is frequently reckoned as more than an equivalent for riches. Yet neither a wise man nor woman will seek to marry greatly out of their sphere of life.

2690. When you are going to marry, do not expect more from life than life will afford.

2691. For acquirements, look more to solid knowledge, either in wife or husband, than to accomplishments.

2692. When a young man admires a lady, and thinks her society necessary to his happiness, it is proper, before committing himself, or inducing the object of his admiration to do so, to apply to her parents or guardians for permission to address her; this is a becoming mark of respect, and the circumstances must be very peculiar, which would justify a deviation from this course.

2693. Young men frequently amuse themselves by playing with the feelings of young women. They visit them often, they walk with them, they pay them divers attentions, and after giving them an idea that they are attached to them, they

either leave them, or, what is worse, never come to an explanation of their sentiments. This is to act the character of a "dangler," a character truly dastardly and infamous.

2694. In case of rejection, the gentleman should at once, unless under peculiar circumstances, abstain from his suit. Unless he does so, his conduct becomes persecuting.

2695. Ladies should never, by the slightest familiarity, encourage any one whom they would object to marry.

2696. Rejection should be courteous, definite, and decisive; but conched in a manner that, whilst it deprives the suitor of hope, inflicts no pain.

2697. Engaged people should avoid compliments in company.

2698. A proposal being made, the lady should first signify her own willingness, and then refer her suitor to her parents.

2699. In public, or in company, the conduct of lovers should be guarded. Avoid all show of extreme preference. Neither caress nor chide before others.

2700. Letters, trinkets, and presents, when engagements are broken off, are always returned by both parties.

2701. Long engagements are dangerous.

2702. If a gentleman does not intend to marry a lady, he has no right to make his attentions peculiar. He should consider her true interest, and he would not trifle with her affections.

2703. *Love's Telegraph.*—If a gentleman wants a wife, he wears a ring on the *first* finger of the left hand; if he is engaged, he wears it on the *second* finger; if married, on the *third;* and on the *fourth*, if he never intends to be married.

2704. When a lady is not engaged, she wears a hoop or diamond on her *first* finger; if engaged, on the *second;* if

married, on the *third;* and on the *fourth,* if she intends to die a maid.

2705. When a gentleman presents a fan, flower, or trinket, to a lady with the *left* hand, this on his part, is an overture of regard; should she receive it with the *left* hand, it is considered as an acceptance of his esteem; but if with the *right* hand, it is a refusal of the offer.

2706. Thus, by a few simple tokens, explained by rule, the passion of love is expressed: and, through the medium of the telegraph, the most timid and diffident man may, without difficulty, communicate his sentiments of regard to a lady, and in case his offer should be refused, avoid experiencing the mortification of an explicit refusal.

2707. *Marriage Ceremony.*—Weddings are everywhere accompanied with some degree of ceremony, and are usually considered as occasions of festivity.

2708. The preliminaries having been arranged by the contracting parties, and the lady having named the happy day, preparations are made for the wedding.

2709. Those who belong to the Episcopal and Roman Catholic churches are usually married at church, in the morning, and by the prescribed forms.

2710. In some cases there is a wedding-party given in the evening; in others, the happy couple make a short wedding tour, and issue cards of invitation on their return.

2711. Where a wedding is celebrated in the usual forms, cards of invitation are issued at least a week beforehand.

2712. The hour selected is usually eight o'clock, P. M.

2713. Wedding cakes, wines, and other refreshments are provided by the bride and her friends for the occasion.

2714. The bride is usually dressed in pure white—she wears

a white vail, and her head is crowned with a wreath of white flowers, usually artificial; and orange blossoms are preferred.

2715. She should wear no ornaments but such as her intended husband or her father may present her for the occasion —certainly no gift, if any such were retained, of any former sweetheart.

2716. The bridesmaid, or bridesmaids, if there be two, or more, are generally younger than the bride, and should also be dressed in white, but more simply.

2717. The bridegroom must be in full dress, that is, he must wear a dress coat, which if he pleases, may be faced with white satin; a white satin vest, black pantaloons, and dress boots or pumps, black silk stockings, and white kid gloves, and a white cravat.

2718. The bridegroom is attended by one or two, or more, groomsmen, who should be dressed in a similar manner.

2719. It is the duty of the bridesmaids to assist in dressing the bride, and making the necessary preparations for the entertainment of the guests.

2720. The chief groomsman engages the clergyman or magistrate, and upon his arrival introduces him to the bride and bridegroom, and the friends of the parties.

2721. The invited guests, upon their arrival, are received as at other parties, and after visiting the dressing-rooms, and arranging their toilettes, they proceed to the room where the ceremony is to be performed.

2722. In some cases the marriage is performed before the arrival of the guests.

2723. When the hour for the ceremony has arrived, and all things are ready, the wedding party, consisting of the happy couple, with the bridesmaids and groomsmen, walk into the room arm in arm.

2724. The groomsmen, each attending the bridesmaids, precede the bride and bridegroom, and take their position at the head of the room, which is usually the end furthest from the entrance; the bride standing facing the assembly on the left of the bridegroom—the bridesmaids taking their position at her left, and the groomsmen at the right of the bridegroom.

2725. The principal groomsman now formally introduces the clergyman or magistrate to the bride and bridegroom, and he proceeds to perform the marriage ceremony; if a ring is to be used, the bridegroom procures a plain gold one, previously taking some means to have it of the proper size.

2726. As soon as the ceremony is over, and the bridegroom has kissed the bride, the clergyman or magistrate shakes hands with the bride, saluting her by her newly-acquired name, as Mrs. ———, and wishes them joy, prosperity and happiness.

2727. Then the groomsmen and bridesmaids do the same; and then the principal groomsmen brings to them the other persons in the room, commencing with the parents and relatives of the parties, the bride's relatives having precedence, and ladies being accompanied by gentlemen.

2728. In this manner, all present are expected to make their salutations and congratulations, first to the newly-married couple, and then to their parents and friends.

2729. And where the wedding cremony has been performed before the arrival of the guests, they are received near the door, having, of course, first visited the dressing-rooms, and are introduced in the same manner.

2730. The groomsman takes occasion, before the clergyman or magistrate leaves, to privately thank him for his attendance, at the same time placing in his hand the marriage fee, which is wrapped up nicely in paper, and if more than the legal sum, as is frequently the case where the parties are wealthy, it is usually in gold.

2731. The bridegroom, of course, takes an early opportunity to reimburse his groomsman for necessary expenses.

2732. When the presentations and congratulations are over, that is, when the guests have arrived, the bridal party, which till now has kept its position, mingles with the rest of the company, and joins in the dancing or other amusements.

2733. The practice of kissing the bride is not so common as formerly, and in regard to this, the taste of the bridegroom may be consulted, as the rest of the company follow the example of the groomsman; but the parents and very near relatives of the parties, of course, act as affection prompts them.

2734. When the ceremony is performed according to the Protestant Episcopal service, the order of going to church is as follows:

2735. The bride, accompanied by her *father*, not unfrequently her *mother*, and uniformly by a *bridesmaid*, occupies the *first carriage*.

2736. The father hands out the bride, and leads her to the altar, the mother and bridesmaid following. After them come the other bridesmaids, attended by the groomsmen, if there are more than one.

2737. *The bridegroom* occupies the *last carriage*, with the principal groomsman, an intimate friend or brother.

2738. He follows, and stands facing the altar, with *the bride at his left hand*. The father places himself behind, with the mother, if she attends.

2739. *The chief bridesmaid* occupies a place on the *left* of the *bride*, to hold her gloves and handkerchief, and flowers; her *companions* range themselves on *the left*.

2740. Remember to *take the ring with you*. The fee to a clergyman is according to the fortune of the bridegroom; and a trifle should be given to the sexton.

2741. When the ceremony is concluded, *the bride takes the groom's arm*, they enter their carriage, and proceed to the breakfast, every one else following.

2742. *The order of return from church* differs from the above only in the fact that the bride and bridegroom now ride together, the bride being on his left, and a bridesmaid, and a groomsman, or the father of the bride, occupying the front seats of the carriage.

2743. *The wedding breakfast* having been already prepared, the wedding party return thereto.

2744. If a large party, the bride and bridegroom occupy seats in the centre of the long table, and the two extremities should be presided over by elderly relatives, if possible one from each family.

2745. Every body should endeavor to make the occasion as happy as possible.

2746. After marriage, the bridal party usually travel for a week or two; upon their return, it is customary for the bride to be at home for a few days to receive visits. The first four weeks after marriage, constitute the honeymoon.

2747. You need not retain the whole of your previous acquaintance; those only to whom you send cards, are, after marriage, considered in the circle of your visiting acquaintance.

2748. The parents or friends of the bride usually send the cards to her connections; the bridegroom selects those persons among his former associates whom he wishes to retain as such.

2749. The cards are sometimes united by a silken cord, or white ribbon, to distinguish those of a newly married pair from ordinary visitors; but it is doubtful whether it be in good taste.

2750. A married woman may leave her own or her husband's card in returning a visit; the latter only would be adopted as a resource in the event of her not having her own with her

2751. Cards should (if belonging to the gentleman) be plain, plainly written or printed, and unglazed and ungilt.

2752. Ladies should have their cards enameled, but, for obvious reasons, the name plain and distinct, so as to catch the eye at once.

2753. When a man marries, it is understood that all former acquaintanceship ends, unless he intimate a desire to renew it, by sending you his own and his wife's card, if near, or by letter, if distant.

2754. If this be neglected, be sure no further intercourse is desired.

2755. In the first place: A bachelor is seldom very particular in the selection of his companions. So long as he is amused, he will associate freely enough with those whose morals and habits would point them out as highly dangerous persons to introduce into the sanctity of domestic life.

2756. Secondly. A married man has the tastes of another to consult; and the friends of the husband may not be equally acceptable to the wife.

2757. Besides, newly-married people may wish to limit the circle of their friends, from commendable motives of economy.

2758. When a man first "*sets up*" in the world, the burden of an extensive and indiscriminate acquaintance may be felt in various ways.

2759. Many have had cause to regret the weakness of mind which allowed them to plunge into a vortex of gayety and expense they could ill afford, from which they have found it difficult to extricate themselves, and the effects of which have proved a serious evil to them in after life.

2760. When a man is about to be married, he usually gives a dinner to his bachelor friends; which is understood to be their congé unless he choose to renew their acquaintance.

2761. *Wedding-rings.*—The custom of wearing wedding-rings appears to have taken its rise among the Romans.

2762. Before the celebration of their nuptials, there was a meeting of friends at the house of the lady's father, to settle articles of the marriage contract, when it was agreed that the dowry should be paid down on the wedding-day or soon after.

2763. On this occasion, there was commonly a feast, at the conclusion of which the man gave to the woman as a pledge, a ring, which she put on the fourth finger of her left hand, *because it was believed that a nerve reached thence to the heart,* and a day was then named for the marriage.

2764. *Wedding cakes.*—Four pounds of fine flour, well dried, four pounds of fresh butter, two pounds of loaf sugar, a quarter of a pound of mace pounded and sifted fine, the same of nutmegs.

2765. To every pound of flour add eight eggs ; wash four pounds of currants ; let them be well picked and dried before the fire ; blanch a pound of sweet almonds, and cut them lengthwise very thin ; a pound of citron, one pound of candied orange, the same of candied lemon ; half a pint of brandy.

2766. When these are made ready, work the butter with your hand to a cream, then beat in your sugar, a quarter of an hour, beat the whites of your eggs to a very strong froth ; mix them with your sugar and butter ; beat your eggs half an hour at least, and mix them with your cake ; then put in your flour, mace and nutmeg ; keep beating it well till your oven is ready—pour in the brandy, and beat the currants and almonds lightly in.

2767. Tie three sheets of white paper round the bottom of your hoop to keep it from running out ; rub it well with butter, put in your cake, lay the sweetmeats in layers, with cake between each layer, and after it is risen and colored, cover it with paper before your oven is stopped up ; it will require three hours to bake properly.

2768. *Almond Icing for Wedding Cake.*—Beat the whites

of three eggs to a strong froth ; beat a pint of Jordan almonds very fine with rose-water ; mix them, with the eggs, lightly together ; put in by degrees a pound of common loaf sugar in powder.

2769. When the cake is baked enough, take it out, and lay it on the icing ; then put it in to brown.

2770. *After Marriage.*—The power of a wife for good or evil, is irresistible. Home must be the seat of happiness, or it must be for ever unknown.

2771. A good wife is to a man, wisdom and courage, and strength and endurance.

2772. A bad wife is confusion, weakness, discomfiture, and despair.

2773. No condition is hopeless where the wife possesses firmness, decision, and economy.

2774 There is no outward prosperity which can counteract indolence, extravagance, and folly at home. No spirit can long endure bad domestic influence.

2775. Man is strong, but his heart is not adamant. He delights in enterprise and action ; but to sustain him he needs a tranquil mind, and a whole heart. He needs his moral force in the conflicts of the world.

2776. To recover his equanimity and composure, home must be to him a place of repose, of peace, of cheerfulness, of comfort ; and his soul renews its strength again, and goes forth with fresh vigor to encounter the labor and troubles of life.

2777. But if at home he finds no rest, and is there met with bad temper, sullenness, or gloom, or is assailed by discontent or complaint, hope vanishes, and he sinks into despair.

2778. A wife must learn, to form her husband's happiness, in what direction the secret lies ; she must not cherish his

weaknesses by working upon them; she must not rashly run counter to his prejudices; her motto must be, never to irritate.

2779. She must study never to draw largely on the small stock of patience in a man's nature, nor to increase his obstinacy by trying to drive him; never, never, if possible, to have scenes.

2780. We doubt much if a real quarrel, even made up, does not loosen the bond between man and wife, and sometimes, unless the affection of both be very sincere, lastingly.

2781. If irritation should occur, a woman must expect to hear from most men a strength and vehemence of language far more than the occasion requires. Mild, as well as stern men, are prone to this exaggeration of language; let not a woman be tempted to say any thing sarcastic or violent in retaliation. The bitterest repentance must needs follow if she do.

2782. Men frequently forget what they have said, but seldom what is uttered by their wives. They are grateful, too, for forbearance in such cases; for, whilst asserting most loudly that they are right, they are often conscious that they are wrong.

2783. Give a little time, as the greatest boon you can bestow, to the irritated feelings of your husband.

2784. It is astonishing how much the cheerfulness of a wife contributes to the happiness of home.

2785. She is the sun—the centre of a domestic system, and her children are like planets around her, reflecting her rays.

2786. How merry the little ones look when the mother is joyous and good-tempered; and how easily and pleasantly her household labors are overcome!

2787. *How to Treat a Wife.*—First, get a wife; secondly, be patient.

2788. You may have great trials and perplexities in your

business with the world, but do not carry to your home a clouded or contracted brow.

2789. Your wife may have had many trials, which, though of less magnitude, may have been as hard to bear.

2790. A kind, conciliating word, a tender look, will do wonders in chasing from her brow all clouds of gloom.

2791. You encounter difficulties in the open air, fanned by heaven's cool breezes; but your wife is often shut in from these healthful influences, and her health fails, and her spirits lose their elasticity.

2792. But oh! bear with her; she has trials and sorrows to which you are a stranger, but which your tenderness can deprive of all their anguish.

2793. Notice kindly her little attentions and efforts to promote your comfort.

2794. Do not treat her with indifference, if you would not sear and palsy her heart, which, watered by kindness, would, to the latest day of your existence, throb with sincere and constant affection.

2795. Sometimes yield your wishes to hers. She has preferences as strong as you, and it may be just as trying to yield her choice as to you.

2796. Do you find it hard to yield sometimes? Think you it is not difficult for her to give up always?

2797. If you never yield to her wishes, there is danger that she will think you are selfish, and care only for yourself, and with such feelings she can not love as she might.

2798. Again, show yourself manly, so that your wife can look up to you and feel that you will act nobly, and that she can confide in your judgment.

2799. You can hardly imagine how refreshing it is to occasionally call up the recollection of your courting days.

2800. How tediously the hours rolled away prior to the appointed time of meeting; how swift they seemed to fly, when met; how fond was the first greeting; how tender the last embrace; how fervent were your vows; how vivid your dreams of future happiness, when, returning to your home, you felt yourself secure in the confessed love of the object of your warm affections.

2801. Is your dream realized?—are you as happy as you expected?

2802. Why not? Consider whether as a husband you are as fervent and constant as you were when a lover.

2803. Remember that the wife's claims to your unremitting regard—great before marriage, are now exalted to a much higher degree.

2804. She has left the world for you—the home of her childhood, the fireside of her parents, their watchful care and sweet intercourse have all been yielded up for you.

2805. Look then most jealously upon all that may tend to attract you from home, and to weaken that union upon which your temporal happiness mainly depends; and believe that in the solemn relationship of husband is to be found one of the best guarantees for man's honor and happiness.

2806. When once a man has established a home, his most important duties have fairly begun.

2807. The errors of youth may be overlooked; want of purpose, and even of honor, in his earlier days, may be forgotten.

2808. But from the moment of his marriage he begins to write his indelible history; not by pen and ink, but by actions —by which he must ever afterward be reported and judged.

2809. His conduct at home; his solicitude for his family; the training of his children; his devotion to his wife; his regard for the interests of eternity, are his record.

2810. Seek to govern your own household by the display of high moral excellence.

2811. A domineering spirit—a fault-finding petulance—impatience of trifling delays—and the exhibition of unworthy passions at the slightest provocation, can add no laurel to your own "lordly" brow, impart no sweetness to home, and call forth no respect from those by whom you may be surrounded.

2812. It is one thing to be a *master*—another thing to be a *man.* The latter should be the husband's aspiration; for he who can not govern himself is ill-qualified to govern another.

OUR HOUSE.

2813. *If a young married couple* intend to furnish a house, we say to them—Attend to these rules.

2814. Do not spend all your money, be it much or little. Do not let the beauty of this thing, and the cheapness of that, tempt you to buy unnecessary articles.

2815. Buy merely enough to get along with at first. It is only by experience that you can tell what will be the wants of your family.

2816. If you spend all your money, you will find you have purchased many things you do not want, and have no means left to get many things which you do want.

2817. If you have enough, and more than enough, to get every thing suitable to your situation, do not think you must spend it all, merely because you happen to have it.

2818. Begin humbly. As riches increase, it is easy and pleasant to increase in comforts; but it is always painful and inconvenient to decrease. After all, these things are viewed in their proper light by the truly judicious and respectable.

2819. Neatness, tastefulness, and good sense may be shown in the management of a small household, and the arrangement of a little furniture, as well as upon a larger scale ; and these qualities are always praised, and always treated with respect and attention.

2820. The consideration which many purchase by living beyond their income, and, of course, living upon others, is not worth the trouble it costs.

2821. The glare there is about this false and wicked parade is deceptive: it does not, in fact, procure a man valuable friends, or extensive influence.

2822. *If the house is rented.*—Before taking a house, be careful to calculate that the rent is not too high in proportion to your means ; for remember that the rent is a claim which must be paid with but little delay, and that the landlord has greater power over your property than any other creditor.

2823. Having determined the amount of rent which you can afford to pay, be careful to select the best house which can be obtained for that sum. And in making that selection, let the following matters be carefully considered:

2824. First.—Carefully regard the healthfulness of the situation. Avoid the neighborhood of graveyards, and of factories giving forth unhealthy vapors ; avoid low and damp districts, the course of canals, and localities of reservoirs of water, gas-works, &c.; make inquiries as to the drainage of the neighborhood, and inspect the drainage and water supply of the premises.

2825. A house standing on an incline is likely to be better drained than one standing upon the summit of a hill, or on a level below a hill.

2826. Endeavor to obtain a position where the direct sunlight falls upon the house, for this is absolutely necessary to health ; and give preference to a house the openings of which are sheltered from the north and east winds.

2827. Second.—Consider the distance of the house from your place of occupation; and also its relation to provision markets, and the prices that prevail in the neighborhood.

2828. Having considered these material and leading features, examine the house in detail, carefully looking into its state of repair.

2829. Notice the windows that are broken; whether the chimneys smoke; whether they have been recently swept; whether the paper on the walls is damaged, especially in the lower parts, and the corners by the skirtings; whether the locks, bolts, handles of doors, and window-fastenings are in proper condition; make a list of the fixtures.

2830. Ascertain whether all rent and taxes were paid up by the previous tenant, and whether the party from whom you take the house is the original landlord, or his agent or tenant.

2831. And do not commit yourself by the signing of any agreement until you are satisfied upon all these points, *and see that all has been done which the landlord had undertaken.*

2832. *In the country,* the married couple usually go to a house of their own.

2833. *Our House!*—It is a phrase of great importance, and gives dignity to the newly married.

2834. *Society.*—Social intercourse is necessary to our happiness and improvement.

2835. *Conversation* is the medium by which social intercourse is maintained.

2836. Style in conversation is as important, and as capable of cultivation, as style in writing. The manner of saying things is what gives them their value.

2837. Avoid provincialisms in your language and pronunciation. Webster is the standard for pronouncing in the best society in the United States.

2838. Under favorable circumstances, and among persons who know how to train a conversation, there are few if any amusements more grateful to the human mind.

2839. The object of conversation is to entertain and amuse. To be agreeable you must learn to be a good listener. A man who monopolizes a conversation is a bore, no matter how great his knowledge.

2840. Never get into a dispute. State your opinions, but do not argue them.

2841. Do not contradict; and above all, never offend by correcting mistakes or inaccuracies of fact or expression.

2842. Never lose temper—never notice a slight—never seem conscious of an affront, unless it is of a gross character, and then punish it at once.

2843. You can never quarrel in the presence of ladies, but a personal indignity may be avenged *anywhere*.

2844. Never talk of people by hints, slurs, innuendos, and such mean devices. If you have any thing to say, out with it. Nothing charms more than candor, when united with good breeding.

2845. Do not call people by their names, in speaking to them. In speaking of your own children, never "Master" and "Miss" them—in speaking to other people of theirs, never neglect to do so.

2846. Be very careful in speaking of subjects upon which you are not acquainted.

2847. Much is to be learned by confessing your ignorance—nothing can be by pretending to knowledge which you do not possess.

2848. Never tell long stories. Avoid all common slang phrases and pet words.

2849. Of all things, don't attempt to be too fine. Use good honest English—and common words for common things.

2850. Good sense, sound and varied information, are as necessary as confidence, to enable a man to converse well.

2851. Every one knows something which he is willing to tell, and which any other that he is in company with wishes to know, or which if known to him, would be amusing or useful.

2852. To be a skillful conversationist, one's eyes and ears should be busy; nothing should escape his observation. His memory should be a good one, and he should have a good-natured willingness to please and to be pleased.

2853. Avoid a loud tone, particularly in speaking to ladies.

2854. By observing men of the world, you will perceive that their voices, as it were, involuntarily assume a softness as they address the sex; this is one of the most obvious proofs of an intimacy with good society.

2855. Never attempt to occupy the attention of a company for a long time; unless your conversation is very brilliant, it must become very tiresome.

2856. Be not partial to theorizing, or your conversation will assume the style of speech-making, which is intolerable.

2857. Badinage is pleasant, but it may be dangerous; stupid people may imagine you are ridiculing them, and the stupid are the most assiduous enemies.

2858. Abjure punning; it has been aptly designated "the wit of fools." Gentlemen never pun.

2859. A tattler is a most contemptible character, uniting in person either excessive ignorance, folly, and vanity, or the extremes of meanness, mischief and malignity.

2860. Women ordinarily slander more from vanity than vice—men, from jealousy than malignity.

2861. Without intending mischief, many persons do much by repeating conversations from one house to another.

2862. A man should never permit himself to lose his temper in society, nor show that he has taken offense at any supposed slight—it places him in a disadvantageous position—betraying an absence of self-respect, or at the least of self-possession.

2863. If, upon the entrance of a visitor, you continue a conversation begun before, you should always explain the subject to the new-comer.

2864. There cannot be a custom more vulgar or offensive than that of taking a person aside to whisper in a room with company, yet this rudeness is of frequent occurrence—and that with persons who ought to know better.

2865. Questions upon that which does not immediately concern you, are impertinent.

2866. Be well read, for the sake of the general company and the ladies, in the literature of the day. You will, thereby, enlarge the regions of pleasurable talk. Besides, it is often necessary.

2867. Hazlitt, who had entertained an unfounded prejudice against Dickens's works when they were first written, confesses that at last he was obliged to read them, because he could not enter a mixed company without hearing them admired and quoted.

2868. Always avoid any thing like absence of mind. Some fops assume this, but it is silly and contemptible.

2869. In order to put everybody in the company at ease, we should adopt the manners and customs of those with whom we happen for the time to consort.

2870. People who, having traveled, adopt, as many do, foreign phraseology, idiom, or accent, are excessively vulgar.

2871. Be especially careful, in a mixed company, whom you satirize.

2872. Swearing, which formerly pervaded every rank of society, is now to be chiefly found in a very low and uninstructed class; it is, in fact, a vulgar and proscribed mode of speech.

2873. To those who are guilty of it, for these reasons it is only necessary to point out, that no well-informed person can be at the least loss, with the genuine words of the English language, to express all legitimate ideas and feelings; and that to use either profane or slang words is, at the least, the indication of a low taste and inferior understanding.

2874. Never presume to cultivate an over-familiarity of manner, which is always offensive; rather be reserved—even to your best friends. If you proceed with members of your family to a party, do not be seen talking with them.

2875. Try to make every one at their ease; and if you find other people are not so well bred as you could wish, take the will for the deed, and never show, nor attempt to show, your disgust at them.

2876. Try heartily to please everybody, and you will be pleased yourself; and, besides this, render yourself the most agreeable person in the room.

2877. Should you chance to be thrown into the company of what the man in the farce calls a real live lord, do not interlard your talk with "my lord," and "your lordship." Sir is sufficient, after once addressing him as "my lord," to show that you *are* acquainted with his rank. Madam is to be used to a lady of title, to whom also the previous rule applies.

2878. There are many talkers, but few who know how to converse agreeably.

2879. Speak distinctly, neither too rapidly nor too slowly.

2880. Accommodate the pitch of your voice to the hearing of the person with whom you are conversing.

2881. Never speak with your mouth full.

2882. Tell your jokes and laugh afterward.

2883. Dispense with superfluous words—such as "Well, I should think."

2884. In society we sometimes meet opionated, selfish people, who fancy they know every thing, when in reality they know nothing!

2885. The real end of acquiring a polite manner is to make yourself pleasing, and your company acceptable to all. This must be done by little sacrifices—by curbing, if you be plagued with it, your desire to engross the conversation, or, on the contrary, breaking through your habitual taciturnity.

2886. The woman who wishes her conversation to be agreeable, will avoid conceit or affectation, and laughter which is not natural and spontaneous.

2887. Her language will be easy and unstudied, marked by a graceful carelessness, which, at the same time, never oversteps the limits of propriety.

2888. Her lips will readily yield to a pleasant smile; she will not love to hear herself talk; her tones will bear the impress of sincerity, and her eyes kindle with animation, as she speaks.

2889. The art of pleasing is, in truth, the very soul of good breeding; for the precise object of the latter is to render us agreeable to all with whom we associate; to make us, at the same time, esteemed and loved.

2890. We need scarcely advert to the rudeness of interrupting any one who is speaking, or to the impropriety of pushing, to its full extent, a discussion which has become unpleasant.

2891. Some men have a mania for Greek and Latin quotations; this is peculiarly to be avoided. It is like pulling up

the stones from a tomb wherewith to kill the living. Nothing is more wearisome than pedantry.

2892. If you feel your intellectual superiority to any one with whom you are conversing, do not seek to bear him down; it would be an inglorious triumph, and a breach of good manners.

2893. Beware, too, of speaking lightly of subjects which bear a sacred character.

2894. Witlings occasionally gain a reputation in society; but nothing is more insipid and in worse taste than their conceited harangues and self-sufficient air.

2895. It is a common idea that the art of writing and the art of conversation are one; this is a great mistake. A man of genius may be a very dull talker.

2896. The two grand modes of making your conversation interesting, are to enliven it by recitals calculated to affect and impress your hearers, and to intersperse it with anecdotes and smart things.

2897. It follows that all matter of offense in conversation should be avoided. The self-love of others is to be respected.

2898. Therefore, no one is tolerated who makes himself the subject of his own commendation, nor who disregards the feelings of those whom he addresses.

2899. There is as much demand for politeness and civility in conversation as in any other department of social intercourse.

2900. One who rudely interrupts another, does much the same thing as though he should, when walking with another, impertinently thrust himself before his companion, and stop his progress.

2901. *Rules of Conduct.*—The following excellent rules are from the diary of Mrs. Fry :—

2902. 1. Never lose any time; I do not think that lost which is spent in amusement or recreation, some time every day; but always be in the habit of being employed.

2903. 2. Never err the least in truth.

2904. 3. Never say any ill thing of a person when thou canst say a good thing of him; not only speak charitably, but feel so.

2905. 4. Never be irritable or unkind to any body.

2906. 5. Never indulge thyself in luxuries that are not necessary.

2907. 6. Do all things with consideration; and, when thy path to act right is most difficult, feel confidence in that Power alone which is able to assist thee, and exert thy own powers as far as they go.

PART XI.

HEALTH AND WEALTH.

How to Preserve Health—Bathing, etc.—Medicine—Ointments—Blisters—Poultices, etc.—Cholera—Domestic Surgery, etc.—Riches—Temperance—Dr. Franklin's Way to Wealth.

THE PRESERVATION OF HEALTH.

2908. In another place (see "Health and Beauty," p. 89, etc.), I have given many useful hints on this subject.

2909. Still more may be told; and new suggestions, cautions, and remedies will be found in the following pages.

2910. *These Rules* are given to persuade people to take care and preserve their health; not to induce them needlessly to doctor themselves.

2911. *The First Rule* for those in health is—take no medicine.

2912. *The Second Rule.*—In sickness, send for the best physicians; viz., those who give least medicine.

2913. Pure atmospheric air is composed of nitrogen, oxygen, and a *very* small proportion of carbonic acid gas. Air once breathed has lost the chief part of its oxygen, and acquired a proportionate increase of carbonic acid gas.

2914. Therefore, health requires that we breathe the same air once only.

2915. The solid part of our bodies is continually wasting, and requires to be repaired by fresh substances.

2916. Therefore, food, which is to repair the loss, should be taken with due regard to the exercise and waste of the body.

2917. The fluid part of our bodies also wastes constantly; there is but one fluid in animals, which is water.

2918. Therefore, water only is necessary, and no artifice can produce a better drink.

2919. The fluid of our bodies is to the solid in proportion as nine to one.

2920. Therefore, a like proportion should prevail in the total amount of food taken.

2921. Light exercises an important influence upon the growth and vigor of animals and plants.

2922. Therefore, our dwellings should freely admit the solar rays.

2923. Decomposing animal and vegetable substances yield various noxious gases, which enter the lungs and corrupt the blood.

2924. Therefore, all impurities should be kept away from our abodes, and every precaution be observed to secure a pure atmosphere.

2925. Warmth is essential to all the bodily functions.

2926. Therefore, an equal bodily temperature should be maintained by exercise, by clothing, or by fire.

2927. Exercise warms, invigorates, and purifies the body; clothing preserves the warmth the body generates; fire imparts warmth externally.

2928. Therefore, to obtain and preserve warmth, exercise and clothing are preferable to fire.

2929. Fire consumes the oxygen of the air, and produces noxious gases.

2930. Therefore, the air is less pure in the presence of candles, gas, or coal fire, than otherwise; and the deterioration should be repaired by increased ventilation.

2931. The skin is a highly-organized membrane, full of minute pores, cells, blood-vessels, and nerves; it imbibes moisture or throws it off, according to the state of the atmosphere and the temperature of the body, It also "breathes," as do the lungs (though less actively). All the internal organs sympathize with the skin.

2932. Therefore, it should be repeatedly cleansed.

2933. Late hours and anxious pursuits exhaust the nervous system, and produce disease and premature death.

2934. Therefore, the hours of labor and study should be short.

2935. Mental and bodily exercise are equally essential to the general health and happiness.

2936. Therefore labor and study should succeed each other.

2937. Man will live most healthily upon simple solids and fluids, of which a sufficient but temperate quantity should be taken.

2938. Therefore, strong drinks, tobacco, snuff, opium, and all mere indulgences should be avoided.

2939. Sudden alternations of heat and cold are dangerous, especially to the young and the aged.

2940. Therefore, clothing, in quantity and quality, should be adapted to the alterations of night and day, and of the seasons.

2941. And therefore, also, drinking cold water when the body is hot, and hot tea and soups when cold, are productive of many evils.

2942. Moderation in eating and drinking, short hours of labor and study, regularity in exercise, recreation, and rest, cleanliness, equanimity of temper and equality of temperature, these are the great essentials to that which surpasses all wealth, *health of mind and body.*

2943. *Bed Clothes.*—The perfection of dress, for day or night, where warmth is the purpose, is that which confines around the body sufficient of its own warmth, while it allows escape to the exhalations of the skin.

2944. Where the body is allowed to bathe protractedly in its own vapors, we must expect an unhealthy effect upon the skin.

2945. Where there is too little ventilating escape, insensible perspiration is checked, and something analogous to fever supervenes; foul tongue, ill taste, and lack of morning appetite betray the evil.

2946. *Early Rising.*—Dr. Wilson Philip, in his "Treatise on Indigestion," says: "Although it is of consequence to the debilitated to go early to bed, there are few things more hurtful to them than remaining in it too long."

2947. Getting up an hour or two earlier, often gives a degree of vigor which nothing else can procure.

2948. For those who are not much debilitated, and sleep well, the best rule is to get out of bed soon after waking in the morning.

2949. This at first may appear too early, for the debilitated require more sleep than the healthy; but rising early will gradually prolong the sleep on the succeeding night, till the quantity the patient enjoys is equal to his demand for it.

2950. Lying late is not only hurtful, by the relaxation it occasions, but also by occupying that part of the day at which exercise is most beneficial.

2951. The difference between rising every morning at six and at eight, in the course of forty years, amounts to 29,200 hours, or three years one hundred and twenty-one days and sixteen hours, which are equal to eight hours a day for exactly ten years.

2952. Thus, rising at six will be the same as if ten years of life (a weighty consideration) were added, wherein we may command eight hours every day for the cultivation of our minds and the dispatch of business.

2953. *Development of the Lungs.*—Much has been said and written upon diet, eating and drinking, but I do not recollect ever noticing a remark in any writer upon breathing, or the manner of breathing. Multitudes, and especially ladies in easy circumstances, contract a vicious and destructive mode of breathing.

2954. They suppress their breathing, and contract the habit of short, quick breathing, not carrying the breath half way down the chest, and scarcely expanding the lower portions of the chest at all.

2955. Lacing the bottom of the chest also greatly increases this evil, and confirms a bad habit of breathing. Children that move about a great deal in the open air, and in no way

laced, breathe deep and full to the bottom of the chest, and every part of it.

2956. So also with most out-door laborers, and persons who take much exercise in the open air, because the lungs give us the power of action; and the more exercise we take, especially out of doors, the larger the lungs become, and are the less liable to disease.

2957. In all occupations that require standing, keep the person straight.

2958. If at table, let it be high; raised up nearly to the armpits, so as not to require you to stoop; you will find the employment much easier—not one half so fatiguing; whilst the form of the chest and symmetry of the figure will remain perfect.

BATHS, &c.

(SEE PAGES 124 AND 125.)

2959. Water is the means of personal purification. Use it freely.

2960. *Bathing.*—If to preserve health be to save medical expenses, without even reckoning upon time and comfort, there is no part of the household arrangement so important to the domestic economist as cheap convenience for personal ablution.

2961. Whoever fits up a bath in a house already built, must be guided by circumstances; but it will always be proper to place it as near the kitchen fire-place as possible.

2962. From thence it may be heated, or at least have its temperature preserved by means of hot air through tubes, or by steam prepared by the culinary fire-place, without interfering with its ordinary uses.

2963. A small boiler may be erected at a very small expense, in the bath-room, where circumstances, do not permit these arrangements.

2964. Whenever a bath is wanted at a short warning, to boil the water necessary will always be the shortest mode; but where it is in general daily use, the heating the water by steam will be found the cheapest and most convenient method.

2965. *Bathing tubs* should never be left with water in them that has been used. Let off the water, and keep them dry as possible.

2966. *A hand-bath* is always to be had when regular bathing is not convenient. With a piece of sponge or an extra towel to wash with, your ablutions may be well performed every day.

2967. *Tepid water*, or even quite warm water, will greatly refresh the system after violent fatigue; but if a warm bath is taken, do not stay in it over ten minutes—indeed *five minutes* is long enough.

2968. *In cold bathing* it should never be forgotten that every thing depends upon the general power of the individual, the state of the system, especially of the skin, at the moment of immersion, and the season of the year.

2969. If the reaction does not speedily take place, means must be employed to insure its so doing, or the use of the cold bath must be abandoned.

2970. Delicate and feeble persons of all ages require a higher temperature of the bath, and a shorter stay in it than others.

2971. No person should bathe immediately after a full meal, particularly if there be an apoplectic tendency.

2972. For a person in good health, early in the morning is the best time to bathe; for one more delicate, from two to three hours after breakfast is preferable.

2973. Never think of undressing and going into the water when greatly fatigued, or when the skin is covered with perspiration.

2974. In most cases moderate exercise is advantageous before bathing, but not exercise of a violent kind.

2975. *Hints about Children.*—The attempt to harden children by exposure to too great a degree of cold, is of the most injurious nature.

2976. For infants and young children, it is clear that water of a lower temperature than what feels cool to the hand of the nurse should be used; but not *cold* water.

2977. *Cold bathing* either produces acute diseases of the lungs, which are then very sensible to external impressions, or disease of the digestive organs, leading to disease of the mesenteric glands, scrofula, water in the brain, or, if they survive a few years, to early consumption.

2978. *Wet the Head.*—It is a good rule to wet the head before taking a plunge or a bath.

2979. "*Cleanliness* is next to godliness," is a maxim of Christian philosophy.

2980. *Exercise.*—Exercise in the open air is of the first importance to the human frame, yet how many are in a manner deprived of it by their own want of management of their time!

2981. Women with slender means are for the most part destined to in-door occupations, and have but little time allotted them for taking the air, and that little time is generally sadly encroached upon by the ceremony of dressing to go out.

2982. Whereas, if all were in readiness, the preparations might be accomplished in a few minutes, the walk not being curtailed by unnecessary delays.

2983. It may appear a simple suggestion, but experience only will show how much time might be redeemed by habits of regularity; such as putting the shawls, cloaks, gloves, shoes, &c., &c., or whatever is intended to be worn, in readiness, in-

stead of having to search one drawer, then another, for possibly a glove or collar—wait for shoes being cleaned, &c.—and this when (probably) the out-going persons have to return to their employment at a given time.

2984. Three principal points in the manner of taking exercise are necessary to be attended to :—1. The kind of exercise. 2. The proper time for exercise. 3. The duration of it.

2985. With respect to the kinds of exercise, the various species of it may be divided into active and passive. Among the first, which admits of being considerably diversified, may be enumerated, walking, running, leaping, swimming, riding, fencing, the military exercise, different sorts of athletic games, &c.

2986. Among the latter, or passive kinds of exercise, may be comprised riding in a carriage, sailing, friction, swinging, &c.

2987. The first, or active exercises, are more beneficial to youth, to the middle-aged, to the robust in general, and particularly to the corpulent and the plethoric.

2988. The second or passive kinds of exercise, on the contrary, are better calculated for children; old, dry, and emaciated persons of a delicate and debilitated constitution; and particularly to the asthmatic and consumptive.

2989. The time at which exercise is most proper, depends on such a variety of concurrent circumstances, that it does not admit of being regulated by any general rules, and must therefore be collected from the observations made on the effects of air, food, drink, &c.

2990. With respect to the duration of exercise, there are other particulars, relative to a greater or less degree of fatigue attending the different species and utility of it in certain states of the mind and body, which must determine this consideration as well as the preceding.

2991. That exercise is to be preferred which, with a view

to brace and strengthen the body, we are most accustomed to, as any unusual one may be attended with a contrary effect.

2992. Exercise should be begun and finished gradually, never abruptly.

2993. Exercise in the open air has many advantages over that used within doors.

2994. To continue exercise until a profuse perspiration or a great degree of weariness takes place, is far from being wholesome.

2995. In the forenoon, when the stomach is not too much distended, muscular motion is both agreeable and healthful; it strengthens digestion, and heats the body less than with a full stomach; and a good appetite after it is a proof that it has not been carried to excess.

2996. But, at the same time, it should be understood, that it is not advisable to take violent exercise immediately before a meal, as digestion might thereby be retarded.

2997. Neither should we sit down to a substantial dinner or supper immediately on returning from a fatiguing walk, at a time when the blood is heated, and the body in a state of perspiration from previous exertion, as the worst consequences may arise, especially where cooling dishes, salad, or a glass of cold drink is begun with.

2998. Exercise is always hurtful after meals, from its impeding digestion, by propelling those fluids too much toward the surface of the body which are designed for the solution of the food in the stomach.

2999. *Climate.*—The action of medicines is modified by climate and seasons. In summer, certain medicines act more powerfully than in winter, and the same person cannot bear the dose in July that he could in December.

3000. *General Health.*—Persons whose general health is

good, bear stronger doses than the debilitated and those who have suffered for a time.

3001. *Idiosyncrasy.*—Walker will inform you that this long term means a peculiar temperament or disposition not common to people generally.

3002. For example, some persons cannot take calomel in the smallest dose without being salivated, or rhubarb without having convulsions; others cannot take squills, opium, senna, &c., therefore it is wrong to *insist* upon their taking these medicines.

3003. *Forms best suited for Administration.*—Fluids act quicker than solids, and powders sooner than pills.

3004. *Best method of Preventing the Nauseous Taste of Medicine.*—Castor oil may be taken in milk, coffee, or spirits such as brandy; but the best method of covering the nauseous flavor, is to put a table-spoonful of strained orange-juice in a wine-glass, pour the castor oil into the centre of the juice, and then squeeze a few drops of lemon-juice upon the top of the oil.

3005. Cod-liver oil may be taken, like castor oil, in orange-juice.

3006. Peppermint water almost prevents the nauseous taste of Epsom salts; a strong solution of extract of liquorice covers the disagreeable taste of aloes; milk, that of cinchona bark; and cloves that of senna.

3007. An excellent way to prevent the taste of medicines is to have the medicine in a glass, as usual, and a tumbler of water by the side of it, then take the medicine and retain it in the mouth, which should be kept closed, and if you then commence drinking the water, the taste of the medicine is washed away.

3008. Even the bitterness of quinine and aloes may be prevented by this means.

3009. *Giving Medicine to Persons.*—Medicines should be given in such a manner that the effect of the first dose should not have ceased when the next dose is given, therefore the intervals between the doses should be regulated accordingly.

3010. *Doses of Medicine for different Ages.*—It must be plain to every one that children do not require such powerful medicine as adults or old people.

3011. Be careful to give the least possible dose that will have effect. The less medicine swallowed, the better for the patient.

TERMS EXPRESSING THE PROPERTIES OF MEDICINES.

3012. These *terms* or names should be carefully remembered, and their explanations.

3013. Absorbents are medicines which destroy acidities in the stomach and bowels, such as magnesia, prepared chalk, &c.

3014. Alteratives are medicines which restore health to the constitution, without producing any sensible effect, such as sarsaparilla, sulphur, &c.

3015. Analeptics are medicines that restore the strength which has been lost by sickness, such as gentian, bark, &c.

3016. Anodynes are medicines which relieve pain, and they are divided into three kinds, *paregorics*, *hypnotics*, and *narcotics* (see these terms); camphor is anodyne as well as narcotic.

3017. Antacids are medicines which destroy acidity, such as lime, magnesia, soda, &c.

3018. Antalkalies are medicines given to neutralize alkalies in the system, such as citric, nitric, or sulphuric acids, &c.

3019. Anthelmintics are medicines used to expel and destroy worms from the stomach and intestines, such as turpentine, cowhage, male fern, &c.

3020. Antibilious are medicines which are useful in bilious affections, such as calomel, &c.

3021. Antirheumatics are medicines used for the cure of rheumatism, such as colchicum, iodide of potassium, &c.

3022. Antiscorbutics are medicines against scurvy, such as citric acid, &c.

3023. Antiseptics are substances used to correct putrefaction, such as bark, camphor, &c.

3024. Antispasmodics are medicines which possess the power of overcoming spasms of the muscles, or allaying severe pain from any cause unconnected with inflammation, such as valerian, ammonia, &c.

3025. Aperients are medicines which move the bowels gently, such as dandelion root, &c.

3026. Aromatics are cordial, spicy, and agreeably-flavored medicines, such as cardamoms, cinnamon, &c.

3027. Astringents are medicines which contract the fibres of the body, diminish excessive discharges, and act indirectly as tonics, such as oak-bark, galls, &c.

3028. Attenuants are medicines which are supposed to thin the blood, such as ammoniated iron, &c.

3029. Balsamics are medicines of a soothing kind, such as Tolu, Peruvian balsam, &c.

3030. Carminatives are medicines which allay pain in the stomach and bowels, and expel flatulence, such as aniseed-water, &c.

3031. Cathartics are strong purgative medicines, such as jalap, &c.

3032. Cordials are exhilarating and warming medicines, such as aromatic confections, &c.

3033. Corroborants are medicines and food which increase the strength, such as iron, gentian, sago, &c.

3034. Demulcents correct acrimony, diminish irritation, and soften parts by covering their surfaces with a mild and viscid matter, such as linseed tea, &c.

3035. Deobstruents are medicines which remove obstructions, such as iodide of potash, &c.

3036. Detergents clean the surfaces over which they pass, such as soap.

3037. Diaphoretics produce perspiration, such as tartrate of antimony, &c.

3038. Digestives are remedies applied to ulcers or wounds, to promote the formation of matter, such as resin ointments, warm poultices, &c.

3039. Discutients possess the power of repelling or resolving tumors, such as galbanum, &c.

3040. Diuretics act upon the kidneys and bladder, and increase the flow of urine, such as nitre, squills, &c.

3041. Drastics are violent purgatives, such as gamboge, &c.

3042. Emetics produce vomiting, or the discharge of the contents of the stomach, such as mustard, tartar emetic, warm water, bloodroot, &c.

3043. Emollients are remedies used externally to soften the parts they are applied to, such as spermaceti, palm oil, &c.

3044. Epispastics are medicines which blister or cause effusion of serum under the cuticle, such as Spanish flies, &c.

3045. Errhines are medicines which produce sneezing, such as tobacco, &c.

3046. Escharotics are medicines which corrode or destroy

the vitality of the part to which they are applied, such as lunar caustic, &c.

3047. Expectorants are medicines which increase expectoration, or the discharge from the bronchial tubes, such as ipecacuanha, &c.

3048. Febrifuges are remedies used in fevers, such as antimonial wines, &c.

3049. Hydragogues are medicines which have the effect of removing the fluid of dropsy, by producing water evacuations, such as gamboge, calomel, &c.

3050. Hypnotics are medicines that relieve pain by procuring sleep, such as hops, &c.

3051. Laxatives are medicines which cause the bowels to act rather more than natural, such as manna, &c.

3052. Narcotics are medicines which cause sleep or stupor, and allay pain, such as opium, &c.

3053. Nutrients are remedies that nourish the body, such as sugar, sago, &c.

3054. Paregorics are medicines which actually assuage pain, such as compound tincture of camphor, &c.

3055. Prophylactics are remedies employed to prevent the attack of any particular disease, such as quinine, &c.

3056. Purgatives are medicines that promote the evacuation of the bowels, such as senna, &c.

3057. Refrigerants are medicines which suppress an unusual heat of the body, such as wood-sorrel, tamarinds.

3058. Rubefacients are medicaments which cause redness of the skin, such as mustard, &c.

3059. Sedatives are medicines which depress the nervous

energy, and destroy sensation, so as to compose, such as foxglove, &c.

3060. Sialagogues are medicines which promote the flow of saliva or spittle, such as salt, calomel, &c.

3061. Soporifics are medicines which induce sleep, such as hops, &c.

3062. Stimulants are remedies which increase the action of the heart and arteries, or the energy of the part to which they are applied, such as sassafras, which is an internal stimulant, and savine, which is an external one.

3063. Stomachics restore the tone of the stomach, such as gentian, &c.

3064. Styptics are medicines which constrict the surface of a part, and prevent the effusion of blood, such as kino, &c.

3065. Sudorifics promote profuse perspiration or sweating, such as ipecacuanha, &c.

3066. Tonics give general strength to the constitution, restore the natural energies, and improve the tone of the system, such as chamomile, &c.

3067. Vesicants are medicines which blister, such as strong liquid ammonia, &c.

3068. *Lotions, &c.*—Lotions are usually applied to the parts required, by means of a piece of linen rag wetted with them, or by wetting the bandage itself.

3069. *Emollient.*—Use decoction of marsh-mallow or linseed.

3070. *Elder-flowers.*—Add two drachms and a half of elder-flowers to one quart of boiling water, infuse for one hour, and strain. *Use* as a discutient.

3071. *Sedative.*—Dissolve one drachm of extract of henbane in twenty-four drachms of water.

3072. *Opium.*—Mix two drachms of bruised opium with half a pint of boiling water, allow it to grow cold, and *use* for painful ulcers, bruises, &c.

3073. *Decoctions.*—These preparations soon spoil, and therefore should only be made in small quantities, particularly in summer.

3074. *Of Chimaphila.*—Take one ounce of pyrola, (chimaphila or winter-green) and boil it in a pint and a half of water until it is only one pint; then strain.

3075. *Dose,* from one to two ounces, four times a day. Use in dropsies, as a diuretic.

3076. *Of Logwood.*—Boil one ounce and a half of bruised logwood in two pints of water until it comes to one pint; then add one drachm of bruised cassia, and strain.

3077. *Dose,* from one to two ounces. Use as an astringent.

3078. *Of Dandelion.*—Take two ounces of the freshly-sliced root, and boil in two pints of water until it comes to one pint; then add one ounce of compound tincture of horse-raddish.

3079. *Dose,* from two to four ounces. Use in a sluggish state of the liver.

OINTMENTS AND CERATES.

3080. These remedies are used as topical applications to parts, generally ulcers, and are usually spread upon linen or other materials.

3081. *Camphorated.*—Mix half an ounce of camphor with one ounce of lard, having, of course, previously powdered the camphor.

3082. Used as a discutient and stimulant in indolent tumors.

3083. *Chalk.*—Mix as much prepared chalk as you can into some lard, so as to form a thick ointment.

3084. Use as an application to burns and scalds.

3085. *For Itch.*—Mix four drachms of sublimed sulphur, two ounces of lard, and two drachms of sulphuric acid together. This is to be rubbed into the body.

3086. *For Scrofulous Ulcerations.*—Mix one drachm of ioduret of zinc and one ounce of lard together.

3087. Use twice a day in the ulcerations.

EMBROCATIONS AND LINIMENTS.

3088. These remedies are used externally as local stimulants, to relieve deep-seated inflammations when other means cannot be employed, as they are more easily applied locally.

3089. *Liniments* are to be rubbed on the skin as the patient can bear.

3090. *Anodyne and Discutient.*—Take two drachms of scraped white soap, half a drachm of extract of henbane, and dissolve them by a gentle heat in six ounces of olive oil.

3091. Used in doses of two or three drachms at a time, for glandular enlargements which are painful and stubborn.

3092. *Strong Ammoniated.*—Add one ounce of strong liquid ammonia (*Liquoris ammoniæ fortis*) to two ounces of olive oil; shake them well together until they are properly mixed.

3093. Use—employed as a stimulant in rheumatic pains, paralytic numbness, chronic glandular enlargements, lumbago, sciatica, &c.

3094. *Compound Ammoniated.*—Add six teaspoonsful of oil of turpentine to the strong ammoniated liniment above.

3095. Use for the diseases mentioned under the head of

strong ammoniated liniment, and chronic affections of the knee and ankle-joints.

3096. *Lime and Oil.*—Take equal parts of common linseed oil and lime-water (*Liquor calcis*), and shake well.

3097. Use, applied to burns, scalds, sun-peelings, &c.

3098. *Camphorated.*—Take half an ounce of camphor, and dissolve it in two ounces of olive oil.

3099. Use as a stimulant, soothing application in stubborn breasts, glandular enlargements, dropsy of the belly, and rheumatic pains.

3100. *Soap Liniment with Spanish Flies.*—Take three ounces and a half of soap-liniment, and half an ounce of tincture of Spanish flies: mix and shake well.

3101. Use as a stimulant to chronic bruises, sprains, rheumatic pains, and indolent swellings.

3102. *Turpentine.*—Take two ounces and a half of resin cerate (*ceratum resinæ*), and melt it by standing the vessel in hot water; then add one ounce and a half of oil of turpentine, and mix.

3103. Use as a stimulant application to ulcers, burns, scalds, &c.

ENEMAS

3104. Are a peculiar kind of medicine, administered by injecting them into the rectum or outlet of the body.

3105. The intention is either to empty the bowels, kill worms, protect the lining membrane of the intestines from injury, restrain copious discharges, allay spasms in the bowels, or nourish the body. These clysters, or glysters, are administered by means of bladders and pipes, or a proper apparatus.

3106. *Laxative.*—Take two ounces of Epsom salts, and

dissolve in three-quarters of a pint of gruel, or thin broth, with an ounce of olive oil. Use as all enemas are used.

3107. *Nutritive.*—Take twelve ounces of strong beef tea, and thicken with hartshorn shavings or arrow-root.

3108. *Turpentine.*—Take half an ounce of oil of turpentine, the yolk of one egg, and half a pint of gruel.

3109. Mix the turpentine and egg, and then add the gruel. Use as an anthelmintic.

3110. *Common.*—Dissolve one ounce of salt in twelve ounces of gruel.

3111. *Castor Oil.*—Mix two ounces of castor oil with one drachm of starch; then rub them together, and add fourteen ounces of thin gruel.

3112. Use—purgative.

3113. *Opium.*—Rub two grains of opium with two ounces of starch, then add two ounces of warm water.

3114. Use as an anodyne, in colic, spasms, &c.

3115. *Oil.*—Mix four ounces of olive oil with half an ounce of mucilage and half a pint of warm water.

3116. Use as a demulcent.

3117. *Assafœtida.*—Dissolve two drachms of the gum in a pint of barley-water.

3118. Used in convulsions from teething.

3119. *Gargles.*—See pages 107, 245, and 246.

3120. *Extracts* are made by evaporating the liquors obtained by infusion or decoction, but these can be bought much cheaper and better of chemists and druggists, and so can tinctures, confections, cerates, plasters, and syrups.

3121. *Method of Ascertaining the State of the Lungs.*—Persons desirous of ascertaining the true state of their lungs, are directed to draw in as much breath as they conveniently can; they are then to count as far as they are able, in a slow and audible voice, without drawing in more breath.

3122. The number of seconds they can continue counting must be carefully observed; in a consumption the time does not exceed ten, and is frequently less than six seconds; in pleurisy and pneumonia it ranges from nine to four seconds. When the lungs are in a sound condition, the time will range as high as from twenty to thirty-five seconds.

3123. *Appetite.*—Appetite is frequently lost through excessive use of stimulants, food taken too hot, sedentary occupation, costiveness, liver disorder, and want of change of air. The first endeavor should be to ascertain and remove the cause.

3124. Change of diet, and change of air, will frequently be found more beneficial than medicines.

3125. *Bile, Bilious or Liver Complaints.*—Abstinence from malt liquors, cool homœopathic cocoa for drink, no tea or coffee, few vegetables, and little bread; bacon in a morning, and well-cooked fresh animal food once a day.

3126. One common cause of putrid and malignant fevers is the want of cleanliness.

POULTICES.

[SEE PAGES 112, 113, AND 230, 231.]

3127. Poultices should be applied as hot as the patient can bear. Cold poultices do no good; remove them.

3128. *Apple Poultice.*—Apples pared, cored and well boiled, then well washed into a pulp, form a very good poultice.

3129. *Starch Poultice.*—Starch, any quantity; thicken with boiling water. When a little cool, stir in a little lard or oil.

3130. *Slippery Elm Poultice.*—Take slippery elm in powder, and mix with water until somewhat thick, then boil it a few minutes. It is to be applied warm.

3131. *Yeast Poultice.*—Wheat flour, one pound; yeast, half a pint. Mix them together over a gentle heat until the mixture begins to rise, then apply warm.

3132. *Mustard Poultice.*—Flour of mustard, one part; flaxseed meal, one part. Make into a paste with water. A little oil or lard should be added to prevent its sticking.

3133. *Poultice made of Hops.*—Boil a handful of hops for a few minutes in a pint of water, in a covered vessel, squeeze out the juice and strain. This liquor is now to be put again on the fire and thickened with Indian meal, and a little lard added as it becomes cool.

3134. *Spice Poultice.*—Cinnamon, allspice, cloves, and ginger, of each equal quantities; honey or molasses to mix.

3135. *Alum Poultice.*—Put the white of a couple of eggs into a plate, and then with a piece of alum between the thumb and finger stir it into a curd.

3136. *Ginger Poultice.*—Wet flannel in hot vinegar and sprinkle on ground ginger—good for toothache.

3137. *Hot Water.*—In bruises, hot water is most efficacious, both by means of insertion and fomentation, in removing pain, and totally preventing discoloration and stiffness. It has the same effect after a blow. It should be applied as quickly as possible, and as hot as it can be borne.

3138. Insertion in hot water will cure that troublesome and fearful thing called a whitlow.

3139. The efficacy of hot water in preventing the ill effects of fatigue is too well known to require notice.

3140. *Blisters.*—See pages 113 and 374.

3141. *Plasters, Cerates, etc.*—See page 238.

3142. *Food for the Sick.*—See page 230, &c.

3143. *Fevers and Remedies.*—See pages 111, 112.

3144. *Mucilage of Gum Arabic.*—Rub one ounce of gum arabic in a mortar, with four ounces of warm water. Use for for coughs, &c.

3145. *Mucilage of Starch.*—Rub one drachm of starch with a little water, and gradually add five ounces of water, then boil until it forms a mucilage.

3146. Use for enemas, topical application and demulcent.

3147. *Cutaneous Eruptions.*—The following mixture is very useful in all cutaneous eruptions:

3148. Ipecacuanha wine, four drachms; flowers of sulphur, two drachms; tincture of cardamoms, one ounce. Mix.

3149. Dose—one teaspoonful to be taken three times a day, in a wine-glassful of water. (See page 232.)

3150. *Small Pox Marks.*—Long observation has convinced me that nothing so effectually removes these disfigurements as gently rubbing the face with a soft towel immediately after washing. This practice, which is free from the objections which may be made against external applications (which are usually violent irritants), quickens the circulation of the blood, producing exfoliation and the formation of new tissues, and at the same time restoring to the cheek its healthy color, which is generally lost by confluent small-pox.—*Dr. Cox.*

3151. Mental and bodily exercise are equally essential to the general health and happiness.

3152. Therefore, labor and study should succeed each other.

3153. Man will live most healthily upon simple solids and

fluids, of which a sufficient but temperate quantity should be taken.

3154. Therefore, strong drinks, tobacco, snuff, opium, and all mere indulgences should be avoided.

SPECIAL RULES FOR THE PREVENTION OF CHOLERA.

3155. We urge the necessity, in all cases of cholera, of an instant recourse to medical aid.

3156. Also under every form and variety of indisposition: for all disorders are found to merge in the dominant disease.

3157. Let immediate relief be sought under disorder of the bowels especially, however slight. The invasion of cholera may thus be readily prevented.

3158. Let every impurity, animal and vegetable, be quickly removed to a distance from the habitations, such as slaughter-houses, pig-sties, cesspools, necessaries, and all other domestic nuisances.

3159. Let all uncovered drains be carefully and frequently cleansed.

3160. Let the grounds in and around the habitations be drained, so as effectually to carry off moisture of every kind.

3161. Let all partitions be removed from within and without habitations, which unnecessarily impede ventilation.

3162. Let every room be daily thrown open for the admission of fresh air; this should be done about noon, when the atmosphere is most likely to be dry.

3163. Let dry scrubbing be used in domestic cleansing in place of water cleansing.

3164. Let excessive fatigue, and exposure to damp and cold, especially during the night, be avoided.

3165. Let the use of cold drinks and acid liquors, especially under fatigue, be avoided, or when the body is heated.

3166. Let the use of cold acid fruits and vegetables be avoided.

3167. Let excess in the use of ardent and fermented liquors and tobacco be avoided.

3168. Let a poor diet, and the use of impure water in cooking, or for drinking, be avoided.

3169. Let the wearing of wet and insufficient clothes be avoided.

3170. Let a flannel or woolen belt be worn round the person.

3171. Let personal cleanliness be carefully observed.

3172. Let every cause tending to depress the moral and physical energies be carefully avoided. Let exposure to extremes of heat and cold be avoided.

3173. Let crowding of persons within houses and apartments be avoided.

3174. Let sleeping in low or damp rooms be avoided.

3175. Let fires be kept up during the night in sleeping or adjoining apartments, the night being the period of most danger from attack, especially under exposure to cold or damp.

3176. Let all bedding and clothing be daily exposed during winter and spring to the fire, and in summer to the heat of the sun.

3177. Let the dead be buried in places remote from the habitation of the living.

3178. By the timely adoption of simple means such as these, cholera or other epidemics will be made to lose its venom.

RULES FOR A SICK ROOM.

3179. See pages 236 and 237.

3180. Keep the patient, and all about him, perfectly clean; and secure, as far as possible, pure air.

3181. The chamber should be ventilated at least once a day, or twice if it can be borne.

3182. The bed clothes should be carried out into the open air, if it is dry, if not, into the next room; and if the patient is unable to sit up meanwhile, let them be supplied by others.

3183. Keep the room quiet, and in perfect order.

3184. Let the sick be addressed in a gentle voice, and the conversation, if any is admitted, be pleasant and cheering.

3185. The nurse and friends should express sympathy with the sufferer, but at the same time seek to inspire courage, and patience to endure.

3186. All vials and powders should be labeled, to prevent fatal mistakes.

3187. The beds should be made at least once a day, and if the patient can bear it, twice. Carry the beds out into the open air, or if damp, into another room.

3188. Keep the skin clean by daily ablutions: change the garments frequently, and rinse the mouth often.

3189. A nurse should be of a pleasant, agreeable, persuasive, and even temper, with great patience to bear with the whims and unreasonable fretfulness that often appear in the sick.

3190. Never dispute with a very sick person, nor reprove him for any seeming inconsistency. Remember that he is scarcely a responsible being.

3191. *To prevent Pitting after Small-Pox.*—Spread a sheet of thin leather with the ointment of ammoniacum with mercury, and cut out a place for the mouth, eyes, and nostrils.

3192. This forms what is called a mask, and after anointing the eye-lids with a little blue ointment (*unguentum hydrargyri*), it should be applied to the face, and allowed to remain for three days for the distinct kind, and four days for the running variety. *Period to apply it:*

3193. *Before* the spots fill with matter, although it will answer sometimes even after they have become pustulous. It may be applied to any part in the same way.

3194. *Precautions to be Observed in giving Medicines.*—*Sex.*—Medicines for females should not be so strong as those for males, therefore it is advisable to reduce the doses about one-eighth.

3195. *Temperament.*—Persons of a phlegmatic temperament bear stimulants and purgatives better than those of a sanguine temperament; therefore the latter require smaller doses.

3196. *Habits.*—Purgatives never act so well upon persons accustomed to take them, as upon those who are not; therefore it is better to change the form of purgative from pill to potion, powder to draught, or aromatic to saline. Purgatives should never be given when there is an irritable state of the bowels.

3197. Stimulants and narcotics never act so quickly upon persons accustomed to use spirits freely as upon those who live abstemiously.

DOMESTIC SURGERY.

3198. This will comprise such hints and advice as will enable any one to act on an emergency, or in ordinary trivial accidents requiring simple treatment; and also to distinguish between serious and simple accidents, and the best means to adopt in all cases that are likely to fall under a person's notice.

3199. These hints will be of the utmost value to the heads of families, to emigrants, and to persons who are frequently called upon to attend upon the sick.

3200. We strongly recommend the parent, emigrant or nurse to read over these directions occasionally, to regard it as a duty, to do so at least three or four times a year, so as to be prepared for emergencies whenever they may arise.

3201. When accidents occur, people are too excited to acquire immediately a knowledge of what they should do; and many lives have been lost for want of this knowledge.

3202. Study, therefore, at moderate intervals, the domestic surgery, treatment of poisons, rules for the prevention of accidents, how to escape from fires, &c., which will be found in various pages of this book.

3203. Let it be impressed upon your mind that the *Index* will enable you to refer to any thing you may require in a moment.

3204. *Dressings* are substances usually applied to parts for the purpose of soothing, promoting their reunion when divided, protecting them from external injuries, as a means of applying various medicines, to absorb discharges, protect the surrounding parts, and securing cleanliness.

3205. Certain instruments are required for the application of dressings in domestic surgery, viz.—Scissors, a pair of tweezers, or simple forceps, a knife, needles and thread, a razor, a lancet, a piece of lunar caustic in a quill, and a sponge.

3206. The materials required for dressings, consist of lint, scraped linen, carded cotton, tow, ointment spread on calico, adhesive plaster, compresses, pads, poultices, old rags of linen or calico, and water.

3207. The following rules should be attended to in applying dressings. Always prepare the new dressings before removing the old ones.

3208. Always have hot and cold water at hand, and a vessel to place the foul dressings in.

3209. Have one or more persons at hand ready to assist, and tell each person what they are to do before you commence, it prevents confusion; thus, one is to wash out and hand the sponges, another to heat the adhesive plaster, or hand the bandages and dressings, and, if requisite, a third to support the limb, &c.

3210. Always stand on the outside of a limb to dress it. Place the patient in as easy a position as possible, so as not to fatigue him. Arrange the bed *after* changing the dressings, but in some cases you will have to do so before the patient is placed on it.

3211. Never be in a hurry when applying dressings, do it quietly. When a patient requires moving from one bed to another, the best way is for one person to stand on each side of the patient, and each to place an arm behind his back, while he passes his arms over their necks; then let their other arms be passed under his thighs, and by holding each other's hands, the patient can be raised with ease, and removed to another bed.

3212. If the leg is injured, a third person should steady it, and if the arm, the same precaution should be adopted.

3213. Sometimes a stout sheet is passed under the patient, and by several people holding the sides, the patient is lifted without any fatigue or much disturbance.

3214. *Lint* may be made in a hurry, by nailing the corners

of a piece of old linen to a board, and scraping its surface with a knife. It is used either alone or spread with ointment.

3215. Scraped lint is the fine filaments from ordinary lint, and is used to stimulate ulcers and absorb discharges; it is what the French call *charpie.*

3216. Scraped lint is made into various shapes, for particular purposes.

3217. For example, when it is screwed up into a conical or wedge-like shape, it is called *a tent,* and is used to dilate fistulous openings, so as to allow the matter to escape freely, to plug wounds, so as to promote the formation of a clot of blood, and thus arrest bleeding.

3218. When it is rolled into little balls they are called *boulettes,* and are used for absorbing matter in cavities, or blood in wounds.

3219. Carded cotton is used as a dressing for superficial burns, and care should be taken to free it from specks, as flies are apt to lay their eggs there, and generate maggots.

3220. Tow is chiefly employed as a padding for splints, as compresses, and also as an outer dressing where there is much discharge from a surface.

3221. Ointments are spread on calicoes, lint, or even thin layers of tow by means of a knife; they should not be spread too thick.

3222. Adhesive plaster is cut into strips, ranging in width according to the nature of the wound, &c., but the usual width is about three-quarters of an inch.

3223. Isinglass plaster is not so irritating as diachylon, and is more easily removed.

3224. *Compresses* are made of pieces of linen, calico, lint, or tow, doubled or cut into various shapes.

3225. They are used to confine dressings in their places, and to apply an equal pressure on parts.

3226. They should be free from darns, hems, and knots.

3227. Ordinary compresses are square, oblong, and triangular.

3228. The *pierced compress* is made by folding up a square piece of linen five or six times on itself, and then nicking the surface with scissors, so as to cut out small pieces.

3229. It is then opened out, and spread with ointment.

3230. It is applied to discharging surfaces, for the purpose of allowing the matter to pass freely through the holes, and is frequently covered with a thin layer of tow.

3231. Compresses are also made in the shape of a Maltese cross, and half a cross, sometimes split singly, and at other times doubly: or they are graduated by placing square pieces of folded cloth on one another, so arranged that they decrease in size each time.

3232. They are used for keeping up pressure upon certain parts.

3233. *Pads* are made by sewing tow inside pieces of linen, or folding linen and sewing the pieces together. They are used to keep off pressure from parts, such as that caused by splints in fractures.

BANDAGES.

3234. Bandages are strips of calico, linen, flannel, muslin, elastic webbing, bunting, or some other substance, of various lengths, such as three, four, eight, ten, or twelve yards, and one, one and a-half, two, two and a-half, three, four, or six inches wide, free from hems or darns; soft and unglazed.

3235. They are better after they have been washed.

3236. Bandages are simple and compound; the former are simple slips rolled up tightly like a roll of ribbon.

3237. There is also another simple kind which is rolled from both ends—this is called a double-headed bandage.

3238. The compound bandages are formed of many pieces.

3239. Bandages for the head should be two inches wide and five yards long; for the neck, two inches wide and three yards long; for the arm, two inches wide and seven yards long; for the leg, two inches and a half wide and seven yards long; for the thigh, three inches wide and eight yards long; and for the body, four or six inches wide and ten or twelve yards long.

3240. To apply a single-headed bandage, lay the *outside of the end* next to the part to be bandaged, and to hold the roll between the little, ring, and middle fingers and the palm of the left hand, using the thumb and fore-finger of the same hand to guide it, and the right hand to keep it firm, and pass the bandage partly round the leg toward the left hand.

3241. It is sometimes necessary to reverse this order, and therefore it is well to be able to use both hands.

3242. *Circular* bandages are used for the *neck*, to retain dressings on any part of it, or for blisters, setons, &c.; for the *head*, to keep dressings on the forehead or any part contained within a circle passing round the head; for the *arm*, previous to bleeding; for the *leg*, above the knee; and for the *fingers*, &c.

3243. *To confine the ends of bandages* some persons use pins, others slit the end for a short distance, and tie the two strips into a knot, and some use a strip of adhesive plaster.

3244. Always place the point of a pin in such a position that it should not be likely to prick the patient, or the person dressing the limb, or be likely to draw out by using the limb: therefore, as a general rule, turn the head of the pin from the free end of the bandage, or toward the upper part of the limb

3245. The *oblique* bandage is generally used for arms and legs, to retain dressings

3246. The *spiral* bandage is generally applied to the trunk and extremities, but it is apt to fall off even when very carefully applied; therefore we generally use another called the recurrent, which folds back again.

3247. The *recurrent* bandage is the best kind of bandage that we can employ for general purposes.

3248. The *circular* bandage is formed by horizontal turns, each of which overlaps the one made before it.

3249. The *spiral* consists of spiral turns.

3250. The *oblique* follows a course oblique or slanting to the centre of the limb.

3251. The *recurrent* folds back again to the part whence it started.

3252. *A bandage for the chest* is always placed upon the patient in a sitting posture; and it may be put on in circles or spirally.

3253. Use, in fractures of the ribs, to retain dressings, and after severe contusions.

3254. *A bandage for the belly* is placed on the patient as directed in the last; if spirally, carrying it from above downward.

3255. Use, to compress the belly after dropsy, or retain dressings.

3256. The *hand* is bandaged by crossing the bandage over the back of the hand.

3257. Use, to retain dressings.

3258. For the *head*, a bandage may be circular, or spiral

or both; in the latter case, commence by placing one circular turn just over the ears; then bring down from left to right, and round the head again, so as to alternate a spiral with a circular turn.

3259. Use, to retain dressings on the head or over the eye; but this form soon gets slack. The circular bandage is the best, crossing it over both eyes.

3260. *For the Foot.*—Place the end just above the outer ankle, and make two circular turns, to prevent its slipping; then bring it down from the inside of the foot over the instep toward the outer part; pass it under the sole of the foot, and upward and inward over the instep toward the inner ankle, then round the ankle, and repeat again.

3261. Use, to retain dressings to the instep, heel or ankle.

3262. *For the leg and foot,* commence and proceed as directed in 2213; then continue it up the leg as ordered in 3247.

3263. As it sometimes happens that it is necessary to apply a bandage at once, and the materials are not at hand, it is desirable to know how to substitute something else *that any one may apply with ease.*

3264. This is found to be effected by handkerchiefs, and an experienced surgeon has paid great attention to this subject, and brought it to much perfection. It is to him, therefore, that we are indebted for most of these hints.

3265. Any ordinary handkerchief will do; but a square of linen, folded into various shapes, answers better.

3266. The shapes generally required are as follows:—The triangle, the long square, the cravat, and the cord.

3267. The *triangular handkerchief* is made by folding it from corner to corner. Use, as a bandage for the head.

3268. *Application.*—Place the base round the head, and the short part hanging down behind, then tie the long ends over it.

3269. The *long-square* is made by folding the handkerchief into three parts, or double it once upon itself.

3270. Use, as a bandage to the ribs, belly, &c. If one handkerchief is not long enough, sew two together.

3271. The *cravat* is folded as usual with cravats. Use, as a bandage for the head, arms, legs, feet, neck, &c.

3272. The *cord* is used to compress vessels, when a knot is made in it, and placed over the vessel to be compressed. It is merely a handkerchief twisted in its long diameter.

3273. Sometimes it is necessary to apply two or more handkerchiefs, as in a broken collar-bone, or when it is necessary to keep dressings under the arm.

3274. It is applied by knotting the two ends of one handkerchief together, passing the left arm through it, then passing another handkerchief under the right arm, and tying it.

3275. By this means we can brace the shoulders well back, and the handkerchief will press firmly over the broken collar-bone; besides, this form of bandage does not readily slip or get slack, but it requires to be combined with the sling, in order to keep the arm steady.

3276. When a woman has an inflamed breast that requires support or dressings to be kept to it, tie two ends of the handkerchief round her neck, and bring the body of it over the breast, and pass it upward and backward under the arm of that side, and tie the ends of those around the neck.

3277. An excellent sling is formed by placing one handkerchief around the neck, and knotting the two ends over the breast-bone, then placing the other in triangle under the arm, to be supported with the base near to the hand; tie the ends over the handkerchief, and pin the top to the other part after passing it around the elbow.

3278. *Apparatus.*—When a person receives a severe contusion of the leg or foot, or breaks his leg, or has painful ulcers over the leg, or is unable from some cause to bear the pressure of the bed-clothes, it is advisable to know how to keep them from hurting the leg.

3279. This may be done by bending up a fire-guard, or placing a chair, resting upon the edge of its back and front of the seat over the leg, or putting a box on each side of it, and placing a plank over them; but the best way is to make a *cradle*, as it is called.

3280. This is done by getting three pieces of wood, and three pieces of iron wire, and passing the wire or hoop through the wood. This can be placed to any height, and is very useful in all cases where pressure cannot be borne.

3281. Wooden hoops cut in halves answer better than the wire.

3282. When a person breaks his leg, and *splints* cannot be had directly, get a bunch of straw or twigs, and roll it up in a handkerchief, and place one on each side of the leg or arm, and bind another handkerchief firmly around them, or make a long bag about three inches in diameter, or even more, of coarse linen duck, or carpet, and stuff this full of bran, sawdust, or sand; sew up the end, and use this the same as the twigs. It forms an excellent extemporaneous splint.

3283. Another good plan is to get a hat-box made of chip, and cut it into suitable lengths, or for want of all these, some bones out of a pair of stays, and run them through a stout piece of rug, protecting the leg with a fold of rug, linen, &c.

3284. When dry warmth is required to be applied to any part of the body, fry a flour pancake and lay it over the part; or warm some sand and place in the patient's socks, and lay it to the part; salt does as well, and may be put into a paper bag; or warm water put into ginger-beer bottles or stone jars, and rolled up in flannel.

3285. *Violent shocks* will sometimes stun a person, and he will remain unconscious.

3286. Untie strings, collars, &c.; loose any thing that is tight, and interferes with the breathing; raise the head; see if there is bleeding from any part; apply smelling-salts to the nose, and hot bottles to the feet.

3287. *In concussion*, the surface of the body is cold and pale, and the pulse weak and small, the breathing slow and *gentle*, and the pupil of the eye generally contracted or small. You can get an answer by speaking loud, so as to arouse the patient.

3288. Give a little brandy and water, keep the place quiet, apply warmth, and do not raise the head too high. If you tickle the feet, the patient feels it.

3289. *In Compression of the Brain*, from any cause, such as apoplexy, or a piece of fractured bone pressing on it, there is loss of sensation. If you tickle the feet, he does not feel it. You cannot arouse him so as to get an answer. The pulse is slow and labored, the breathing slow, labored, and *snorting;* the pupils enlarged.

3290. Raise the head, unloose strings or tight things, and send for a surgeon. If one cannot be got at once, apply mustard-poultices and hot water to the feet, and leeches to the temples; or cold water, which is better.

3291. *Choking.*—When a person has a fish bone in the throat, insert the forefinger, press upon the root of the tongue, so as to induce vomiting; if this does not do, let them swallow a *large piece* of potato or soft bread; and if these fail, give a mustard or soap emetic.

3292. *Fainting, Hysterics, &c.*—Loosen the garments, bathe the temples with water or Eau de Cologne: fresh air; avoid bustle and excessive sympathy.

3293. *Apparent Death from Drunkenness.*—Raise the

head, unloose the clothes, maintain warmth of surface, and give a mustard emetic as soon as the person can swallow.

3294. *Apoplexy, and Fits generally.*—Raise the head ; unloose all tight clothes, strings, &c.; apply cold lotions to the head and cold water, and use hot applications to the feet. Send for a doctor as soon as possible.

3295. *Suffocation* from noxious gases, &c. Remove to the fresh air : dash cold vinegar and water in the face, neck and breast; keep up the warmth of the body ; if necessary, apply mustard-poultices to the soles of the feet, and try artificial respiration as in drowning.

3296. *Lightning and Sun-stroke.*—Treat the same as apoplexy ; that is, use plenty of cold water.

3297. *Hanging.*—Loose the cord, or whatever suspended the person, and proceed as for drowning, taking the additional precaution to apply eight or ten leeches to the temples, or cold water.

LEECHES AND THEIR APPLICATION.

3298. The leech used for medical purposes is called the *Hirudo medicinalis*, to distinguish it from other varieties, such as the horse-leech and the Lisbon leech.

3299. It varies from two to four inches in length, and is of a blackish brown color, marked on the back with six yellow spots, and edged with a yellow line on each side.

3300. Formerly leeches were supplied by Sweden, but latterly most of the leeches are procured from France, where they are now becoming scarce.

3301. When leeches are applied to a part, it should be thoroughly freed from down or hair by shaving, and all liniments, &c., carefully and effectually cleaned away by washing.

3302. If the leech is hungry it will soon bite, but sometimes

great difficulty is experienced in getting them to fasten on. When this is the case, roll the leech into a little porter, or moisten the surface with a little blood, or milk, or sugar and water.

3303. Leeches may be applied by holding them over the part with a piece of linen cloth or by means of an inverted glass, under which they must be placed.

3304. When applied to the gums, care should be taken to use a leech glass, as they are apt to creep down the patient's throat; a large swan's quill will answer the purpose of a leech glass.

3305. When leeches are gorged they will drop off themselves; never *tear* them off from a person, but just dip the point of a moistened finger into some salt, and touch them with it.

3306. Be sure never to allow any one to go to sleep with leech bites bleeding, without watching them carefully; and never apply too many to children.

3307. If a leech is accidentally swallowed, or by any means gets into the body, employ an emetic, or enema of salt and water.

3308. It is to be hoped that these disgusting worms will soon be banished with the lancet from the practice.

3309. *Taking blood* is now conceded, by the best physicians, to be injurious.

3310. "*The life is the blood.*"—Whoever takes away blood, weakens life.—(See page 127.)

3311. *Bruises and Inflammation.*—Use warm water; bathings are better than scarifications.

3312. *Burns and Scalds.*—(See pages 109, 110.)—*Vitriol Accidents.*—See page 110.

3313. *Poisons and their Remedies.*—See pages 120, 121, 122.

3314. *Body in Flames.*—Lay the person down on the floor of the room, and throw the tablecloth, rug, or other large cloth over him, and roll him on the floor.

3315. *Dirt in the Eye.*—Place your forefinger upon the cheekbone, having the patient before you; then draw up the finger and you will probably be able to remove the dirt; but if this will not enable you to get at it, repeat this operation while you have a netting-needle or bodkin placed over the eyelid; this will turn it inside out, and enable you to remove the sand, or eyelash, &c., with the corner of a fine silk handkerchief.

3316. As soon as the substance is removed, bathe the eye with warm water and exclude the light for a day. If the inflammation is severe, take a purgative and use a refrigerant lotion. (969.)

3317. *Lime in the Eye.*—Syringe it well with warm vinegar and water (one ounce to eight ounces of water); take a purgative, and exclude light.

3318. *Iron or Steel Spiculæ in the Eye.*—This occurs while turning iron or steel in a lathe.

3319. Drop a solution of sulphate of copper (from one to three grains of the salt to one ounce of water) into the eye, or keep the eye open in a wine-glassful of the solution.

3320. Take a purgative, bathe with cold lotion, and exclude light to keep down inflammation.

3321. *Dislocated Thumb.*—This is frequently produced by a fall. Make a clove hitch, by passing two loops of cord over the thumb, placing a piece of rag under the cord to prevent it cutting the thumb; then pull in the same line as the thumb. Afterward apply a cold lotion.

3322. *Cuts and Wounds.*—Cut thin strips of sticking-

plaster, and bring the parts together; or if large and deep, cut two broad pieces so as to look like the teeth of a comb, and place one on each side of the wound, which must be cleaned previously.

3323. These pieces must be arranged so that they shall interlace one another; then, by laying hold of the pieces on the right hand side with one hand, and those on the other side with the other hand, and pulling them from one another, the edges of the wound are brought together, and without any difficulty.

3324. *Hemorrhage*, when caused by an artery being divided or torn, may be known by the blood *jumping* out of the wound, and being of a bright scarlet color.

3325. If a vein is injured, the blood is darker, and flows continuously. To stop the latter, apply pressure by means of a compress and bandage.

3326. To arrest arterial bleeding, get a piece of wood (part of a mop-handle will do), and tie a piece of tape to one end of it; then tie a piece of tape loosely over the arm, and pass the other end of the wood under it; twist the stick round and round until the tape compresses the arm sufficiently to arrest the bleeding, and then confine the other end by tying the string round the arm.

3327. If the bleeding is very obstinate, and it occurs in the *arm*, place a cork underneath the string, on the inside of the fleshy part, where the artery may be felt beating by any one; if in the *leg*, place a cork in the direction of a line drawn from the inner part of the knee a little to the outside of the groin.

3328. It is an excellent thing to accustom yourself to find out the position of these arteries, or indeed any that are superficial, and to explain to every one in your house where they are, and how to stop bleeding.

3329. If a stick cannot be got, take a handkerchief, make a cord bandage of it, and tie a knot in the middle; the knot acts as a

compress, and should be placed over the artery, while the two ends are to be tied around the thumb.

3330. Observe *always to place the ligature between the wound and the heart.*

3331. Putting your finger into a bleeding wound, and making pressure until a surgeon arrives, will generally stop violent bleeding.

3332. *Bleeding from the nose*, from whatever cause, may generally be stopped by putting a plug of lint into the nostrils.—See pp. 95–6.

3333. *In dangerous accidents always send off for a surgeon immediately an accident occurs, but treat as directed until he arrives.*

3334. *Accidents.*—See page 94.

RICHES.

3335. "The way to wealth," says Doctor Franklin, "is as plain as the way to market."

3336. Many men, however, either miss the way, or stumble and fall on the road.

3337. Fortune, they say, is a fickle dame—full of her freaks and caprices; who blindly distributes her favors without the slightest discrimination. So inconstant, so wavering is she represented, that her most faithful votaries can place no reliance on her promises.

3338. Disappointment, they tell us, is the lot of those who make offerings at her shrine. Now, all this is a vile slander upon the dear blind lady.

3339. Although wealth often appears the result of mere accident, or a fortunate concurrence of favorable circumstances, without any exertion of skill or foresight, yet every

man of sound health and unimpaired mind may become wealthy, if he takes the proper steps.

3340. Foremost in the list of requisites, are honesty and strict integrity in every transaction of life. Let a man have the reputation of being fair and upright in his dealings, and he will possess the confidence of all who know him.

3341. Without these qualities, every other merit will prove unavailing. Ask concerning a man, "Is he active and capable?" Yes. "Industrious, temperate, and regular in his habits?" O yes.

3342. "Is he honest? is he trustworthy?" Why, as to that, I am sorry to say that he is not to be trusted; he wants watching; he is a little tricky, and will take an undue advantage, if he can.

3343. "Then I will have nothing to do with him:" will be the invariable reply.

3344. In a word, it is almost impossible for a dishonest man to acquire wealth by a regular process of business, because he is shunned as a depredator upon society.

3345. Needy men are apt to deviate from the rule of integrity, under the plea that *necessity* knows no law; they might as well add that it knows no shame.

3346. The course is suicidal, and by destroying all confidence, ever keeps them immured in poverty, although they may possess every other quality for success in the world.

3347. Punctuality, which is said to be the soul of business, is another important element in the art of money-getting.

3348. Therefore be prompt in your payments.

3349. Next, let us consider the advantages of a cautious circumspection in our intercourse with the world. Slowness of belief, and a proper distrust are essential to success.

3350. The credulous and confiding are ever the dupes of knaves and impostors. Ask those who have lost their property how it happened, and you will find in most cases it has been owing to misplaced confidence.

3351. One has lost by endorsing; another by crediting; another by false representations; all of which a little more foresight and a little more distrust would have prevented.

3352. In the affairs of this world, men are not saved by faith, but by the want of it.

3353. Judge of men by what they do, not by what they say. Believe in looks rather than in words.

3354. Before trusting a man, before putting it in his power to cause you a loss, possess yourself of every available information relative to him.

3355. Learn his history, his habits, inclinations and propensities; his reputation for honesty, industry, frugality, and punctuality; his prospects, resources, supports, advantages and disadvantages; his intentions and motives of action; who are his friends and enemies, and what are his good or bad qualities.

3356. You may learn a man's good qualities and advantages from his friends—his bad qualities and disadvantages from his enemies. Make due allowance for exaggeration in both.

3357. Finally, examine carefully before engaging in any thing, and act with energy afterward. Have the hundred eyes of Argus beforehand, and the hundred hands of Briareus afterward.

3358. Order and system in the management of business must not be neglected. Nothing contributes more to dispatch.

3359. Do first what presses most, and having determined what is to be done, and how it is to be done, lose no time in doing it. Without this method, all is hurry and confusion,

little or nothing is accomplished, and business is attended to with neither pleasure nor profit.

3360. A polite, affable deportment is recommended.

3361. Take two men, possessing equal advantages in every other respect, but let one be gentlemanly, kind, obliging, and conciliating in his manners; the other harsh, rude, and disobliging, and the one will become rich, while the other will starve.

3362. *Industry.*—We are now to consider a very important principle in the business of money-getting, namely—*Industry*—persevering, indefatigable, attention to business.

3363. Persevering diligence is the philosopher's stone, which turns every thing to gold. Constant, regular, habitual, and systematic application to business must, in time, if properly directed, produce great results.

3364. It must lead to wealth, with the same certainty that poverty follows in the train of idleness and inattention.

3365. It has been truly remarked, that he who follows his amusements instead of his business, will, in a short time, have no business to follow.

3366. The art of money-saving is an important part of the art of money-getting. Without frugality, no one can become rich; with it, few would be poor. Those who consume as fast as they produce, are on the road to ruin.

3367. As most of the poverty we meet with grows out of idleness and extravagance, so most large fortunes have been the result of habitual industry and frugality.

3368. The practice of economy is as necessary in the expenditure of time as of money. They say that if "we take care of the pence, the pounds will take care of themselves." So, if we take care of the minutes, the days will take care of themselves.

3369. Away, then, with your expensive follies, and you will not then have so much cause to complain of hard times, heavy taxes, and chargeable families.

3370. Many, for the sake of finery on the back, have gone with a hungry stomach, and half starved their families.

3371. The acquisition of wealth demands as much self-denial, and as many sacrifices of present gratification, as the practice of virtue itself.

3372. Vice and poverty proceed, in some degree, from the same sources, namely—the disposition to sacrifice the future to the present; the inability to forego a small present pleasure for great future advantages.

3373. Men fail of fortune in this world, as they fail of happiness in the world to come, simply because they are unwilling to deny themselves momentary enjoyments for the sake of permanent future happiness.

3374. Every large city is filled with persons, who, in order to support the appearance of wealth, constantly live beyond their income, and make up the deficiency by contracting debts which are never paid.

3375. Others there are, the mere drones of society, who pass their days in idleness, and subsist by pirating on the hives of the industrious.

3376. Many who run a short-lived career of splendid beggary, could they but be persuaded to adopt a system of rigid economy for a few years, might pass the remainder of their days in affluence.

3377. But no! They must keep up *appearances*, they must live like other folks.

3378. Their debts accumulate; their credit fails; they are harassed by duns, and besieged by constables and sheriffs.

3379. In this extremity, as a last resort, they submit to a

shameful dependence, or engage in criminal practices, which entail hopeless wretchedness and infamy on themselves and families.

3380. Stick to the business in which you are regularly employed. Let speculators make their thousands in a year or a day; mind your own regular trade, never turning from it to the right hand or to the left.

3381. If you are a merchant, a professional man, or a mechanic, never buy lots or stocks unless you have surplus money which you wish to invest. Your own business you understand as well as other men; but other people's business you do not understand.

3382. Let your business be some one which is useful to the community. All such occupations possess the elements of profit in themselves.

3383. To the foregoing advice we add the description of *the hero in business life.*

3384. A sacred regard to the principles of justice forms the basis of every transaction, and regulates the conduct of the upright man of business.

3385. He is strict in keeping his engagements.

3386. Does nothing carelessly or in a hurry.

3387. Employs nobody to do what he can easily do himself.

3388. Keeps every thing in its proper place.

3389. Leaves nothing undone that ought to be done, and which circumstances permit him to do.

3390. Keeps his designs and business from the view of others.

3391. Is prompt and decisive with his customers, and does not overtrade his capital.

3392. Prefers short credits to long ones; and cash to credit at all times, either in buying or selling; and small profits in credit cases with little risk, to the chance of better gains with more hazard.

3393. He is clear and explicit in all his bargains.

3394. Leaves nothing of consequence to memory which he can and ought to commit to writing.

3395. Keeps copies of all his important letters which he sends away, and has every letter, invoice, &c., relating to his business, titled, classed, and put away.

3396. Never suffers his desk to be confused by many papers lying upon it.

3397. Is always at the head of his business, well knowing that if he leaves it, it will leave him.

3398. Holds it as a maxim that he whose credit is suspected is not one to be trusted.

3399. Is constantly examining his books, and sees through all his affairs as far as care and attention will enable him.

3400. Balances regularly at stated times, and then makes out and transmits all his accounts-current to his customers, both at home and abroad.

3401. He avoids, as much as possible, all sorts of accommodation in money matters and lawsuits where there is the least hazard.

3402. He is economical in his expenditure, always living within his income.

3403. Keeps a memorandum-book in his pocket, in which he notes every particular relative to appointments, addresses, and petty cash matters.

3404. Is cautious how he becomes security for any person; and is generous when urged by motives of humanity.

3405. Let a man act strictly to these habits; when once begun they will be easy to continue in—ever remembering that he hath no profits by his pains whom Providence doth not prosper—and success will attend his efforts.

3406. If he has a good wife, who does her part, the happiness of the noble-hearted business-man is as secure as humanity admits.

TEMPERANCE.

3407. To "be temperate in all things," is the command; a rule necessary for men in order to acquire wealth righteously, and enjoy health perfectly.

3408. Late hours, irregular habits, and want of attention to diet, are common errors with most young men, and these gradually, but at first imperceptibly, undermine the health, and lay the foundation for various forms of disease in after life.

3409. It is a very difficult thing to make young persons comprehend this. They frequently sit up as late as twelve, one, or two o'clock, without experiencing any ill effects; they go without a meal to-day, and to-morrow eat to repletion, with only temporary inconvenience.

3410. One night they will sleep three or four hours, and the next nine or ten; or one night, in their eagerness to get away into some agreeable company, they will take no food at all; and the next, perhaps, will eat a hearty supper, and go to bed upon it.

3411. These, with various other irregularities, are common to the majority of young men, and are, as just stated, the cause of much bad health in mature life.

3412. Indeed, nearly all the shattered constitutions with

which too many are cursed, are the result of a disregard to the plainest precepts of health in early life.

3413. Laborers, and other working people, more especially those whose occupations require them to be much in the open air, may be considered as following a regulated system of moderation; and hence the higher degree of health which prevails among them and their families.

3414. They also observe rules; and those which it is said were recommended by Old Parr are remarkable for good sense; namely—

3415. "Keep your head cool by temperance, your feet warm by exercise; rise early, and go soon to bed; and if you are inclined to get fat, keep your eyes open and your mouth shut."

3416. In other words, sleep moderately, and be abstemious in diet;—excellent admonitions, more especially to those inclined to corpulency.

3417. The advantage to be derived from a regular mode of living, with a view to the preservation of health and life, are nowhere better exemplified than in the precepts and practice of Plutarch, whose rules for this purpose are excellent; and by observing them himself, he maintained his bodily strength and mental faculties unimpaired to a very advanced age.

3418. Galen is a still stronger proof of the advantages of a regular plan, by means of which he reached the great age of 140 years, without having ever experienced disease.

3419. His advice to the readers of his "Treatise on Health," is as follows:

3420. "I beseech all persons who shall read this work, not to degrade themselves to a level with the brutes, or the rabble, by gratifying their sloth, or by eating and drinking promiscuously whatever pleases their palates, or by indulging their appetites of every kind.

3421. "But, whether they understand physic or not, let them consult their reason, and observe what agrees, and what does not agree with them, that, like wise men, they may adhere to the use of such things as conduce to their health, and forbear every thing which, by their own experience, they find to do them hurt; and let them be assured that, by a diligent observation and practice of this rule, they may enjoy a good share of health, and seldom stand in need of physic or physicians."

3422. The celebrated maxims of Dr. Franklin, published as the "Sayings of Poor Richard," deserve a place in this family book.

3423. I have sought out, and here bring together, over one hundred of these prudent precepts.

THE WAY TO WEALTH.

3424. God helps those who help themselves.

3425. Many words won't fill a bushel.

3426. Sloth, like rust, consumes faster than labor wears.

3427. The key often used is always bright.

3428. Dost thou love life? Then do not squander time, for that is the stuff life is made of.

3429. The sleeping fox catches no poultry.

3430. There will be time enough for sleep, in the grave.

3431. If time be of all things the most precious, wasting time must be the greatest prodigality.

3432. Lost time is never found again.

3433. What we call time enough, always proves little enough.

3434. Sloth makes all things difficult, but industry all easy.

3435. He that riseth late must trot all day, and shall scarce overtake his business at night.

3436. Laziness travels so slowly, that poverty soon overtakes him.

3437. Drive thy business, lest it drive thee.

3438. Early to bed and early to rise, makes a man healthy, wealthy, and wise.

3439. Industry need not wish.

3440. He that lives upon hope, will die fasting.

3441. There are no gains without pains.

3442. Help, hands, for I have no lands.

3443. He that hath a trade, hath an estate, and he that hath a calling, hath an office of profit and honor; but the trade must be worked at, and the calling well followed, or neither will enable us to pay our taxes.

3444. The drone in the hive makes no honey.

3445. At the working-man's house hunger looks in, but does not enter.

3446. Industry pays debts, but despair increaseth them.

3447. Diligence is the mother of good luck.

3448. God gives all things to industry.

3449. Plow deep while sluggards sleep, and you will have corn to sell and to keep.

3450. One to-day is worth two to-morrow.

3451. Have you somewhat to do to-morrow, do it to day.

3452. If you were a servant, would you not be ashamed that a good master should catch you idle? Are you, then, your own master? be ashamed to catch yourself idle.

3453. The cat in gloves catches no mice.

3454. Handle your tools without mittens.

3455. Light strokes fell great oaks.

3456. By diligence and patience, the mouse ate into the cable.

3457. Employ thy time well, if thou meanest to gain leisure; and since thou art not sure of a minute, throw not away an hour.

3458. A life of leisure and a life of laziness, are two things.

3459. Troubles spring from idleness, and grievous toils from needless ease.

3460. Many would live by their wits, without labor, but they break for want of stock.

3461. Industry gives comfort, plenty, and respect.

3462. Fly pleasures, and they'll follow you.

3463. Now I have a sheep and a cow, everybody bids me good-morrow.

3464. I never saw an oft-removed tree,
Nor yet an oft-removed family,
That throve so well as one that settled be.

3465. Three removes are as bad as a fire.

3466. Keep thy shop, and thy shop will keep thee.

3467. If you would have your business done, go; if not, send.

3468. He that by the plow would thrive,
Himself must either hold or drive.

3469. The eye of the master will do more work than both his hands.

3470. Want of care does us more damage than want of knowledge.

3471. Not to oversee workmen, is to leave them your purse open.

3472. In the affairs of the world, men are saved not by faith, but for the want of it.

3473. Learning is to the studious, and riches to the careful, as well as power to the bold, and heaven to the virtuous.

3474. If you would have a faithful servant, and one that you like, serve yourself.

3475. A little neglect may breed great mischief.

3476. For want of a nail the shoe was lost;
For want of a shoe the horse was lost;
For want of a horse the rider was lost—
Being overtaken and slain by the enemy.

3477. If a man save not as he gets, he may keep his nose to the grindstone all his life, and die not worth a groat.

3478. A fat kitchen makes a lean will.

3479. Many estates are spent in the getting,
Since women for tea, forsook spinning and knitting,
And men for punch, forsook hewing and splitting.

3480. The Indies did not make Spain rich, because her outgoes were greater than her incomes.

3481. Women and wine, game and deceit,
Make the wealth small, and the want great.

3482. What maintains one vice would bring up two children.

3483. Many a little makes a mickle.

3484. Beware of little expenses; a small leak will sink a great ship.

3485. Who dainties love, shall beggars prove.

3486. Fools make feasts, and wise men eat them.

3487. Buy what thou dost not need, and ere long thou shalt sell thy necessaries.

3488. At a great bargain pause awhile.

3489. Many have been ruined by good bargains.

3490. It is foolish to lay out money in the purchase of repentance.

3491. Wise men learn by other's harms, fools scarcely by their own.

3492. Silks and satins, scarlet and velvets, put out the kitchen fire.

3493. For one poor person, there are a hundred indigent.

3494. A plowman on his legs, is higher than a gentleman on his knees.

3495. Always taking out of the meal-tub, and never putting in, soon comes to the bottom.

3496. When the well is dry we know the worth of water.

3497. If you would know the value of money, try to borrow.

3498. He that goes a-borrowing, goes a-sorrowing.

3499. Fond pride of dress is sure a very curse;
Ere fancy you consult, consult your purse.

3500. Pride is as loud a beggar as Want, and a great deal more saucy.

3501. It is easier to suppress the first desire than to satisfy all that follow it.

3502. Vessels large may venture more,
But little boats should keep the shore.

3503. Pride that shines on vanity sups on contempt.

3504. Pride breakfasted with Plenty, dined with Poverty, and supped with Infamy.

3505. What is a butterfly? At best
He's but a caterpillar dress'd;
The gaudy fop's his picture just.

3506. The second vice is lying; the first is running in debt.

3507. Lying rides upon debt's back.

3508. It is hard for an empty bag to stand upright.

3509. Creditors have better memories than debtors.

3510. Creditors are a superstitious sect, great observers of set days and times.

3511. Those have a short Lent who owe money to be paid at Easter.

3512. The borrower is a slave to the lender, and the debtor to the creditor.

3513. For age and want save while you may,
No morning sun lasts a whole day.

3514. It is easier to build two chimneys than to keep one in fuel.

3515. Rather go supperless to bed than rise in debt.

3516. Get what you can, and what you get hold;
'Tis the stone that will turn all your lead into gold.

3517. Experience keeps a dear school; but fools will learn in no other, and scarce in that; for we may give advice, but we cannot give conduct.

3518. They that will not be counseled cannot be helped.

3519. If you will not reason, she will surely rap their knuckles.

3520. Distrust and caution are the parents of security.

3521. After feasts made, the maker shakes his head.

3522. There is neither honor nor gain got in dealing with a villain.

3523. Visits should be like a winter's day, short.

3524. A house without woman and firelight,
Is like a body without soul or sprite.

3525. Light purse, heavy heart.

3526. Ne'er take a wife till thou hast a house (and a fire) to put her in.

3527. Hunger never saw bad bread.

3528. Great talkers, little doers.

3529. A rich rogue is like a fat hog;
He does no good till as dead as a log.

3530. Relation without friendship, friendship without power, power without will, will without effect, effect without profit, and profit without virtue, are not worth a farthing.

3531. He has changed his one-eyed horse for a blind one.

3532. To lengthen thy life, lessen thy meals.

3533. Tongue double, brings trouble.

3534. He's the best physician that knows the worthlessness of most medicines.

PART XII.

THE FAMILY AT HOME.

A Good Table—Bread, etc.—Meats—Vegetables—Household Management—Beverages—Useful Receipts, etc.—Maxims, Dietetic and Moral—Tool-Chests—Dressmaking, etc.—Pets—Swimming—Riding—Amusements—Children—Letter-Writing—Debt—Flowers—Time—Air—Laws—Phrenology—Historical—Words of Washington.

3535. A good table is necessary to health and domestic comfort.

3536. Nearly every family in our Republic has, or might have, the means of living very comfortably; if nothing was wasted, and all food was properly cooked, good tables would abound.

3537. In my "New Cook Book" these subjects are so fully treated that little can be added.

3538. Still a few "Choice Receipts" on Cookery will be found in this volume, at page 319 and on. I shall add such other directions in this chapter as seem necessary to complete the system: and first of the staff of life—*bread.*

3539. *Bread.*—To make good bread, or to understand the process of making it, is the duty of every woman; indeed, an art that should never be neglected in the education of a LADY.

3540. *The Lady* derives her title from "dividing or distributing bread:" the more perfect the bread the more noble the lady

3541. In "Mrs. Hale's New Cook Book," and in the following directions, the art is made plain; and the process may, by practice, be easily acquired.

3542. *Proportions of Nutriment in articles of Food.*—See "Mrs. Hale's New Cook Book—Introductory," etc.

3543. *Bread* contains eighty nutritious parts in one hundred; meal thirty-four in one hundred; French beans, ninety-two in one hundred; common beans, eighty-nine in one hundred; peas, ninety-three in one hundred; lentils, ninety-four in one hundred; cabbages and turnips, the most aqueous of all the vegetables compared, produce only eight pounds of solid matter in one hundred pounds; carrots and spinach produce fourteen in the same quantity; while one hundred pounds of potatoes contain twenty-five pounds of dry substance.

3544. From a general estimate it results, that one pound of good bread is equal to two pounds and a half or three pounds of potatoes; that seventy-five pounds of bread and thirty of meat may be substituted for three hundred pounds of potatoes.

3545. The other substances bear the following proportions: four parts of cabbage to one of potatoes; three parts of turnips to one of potatoes; two parts of carrots and spinach to one of potatoes; and about three parts and a half of potatoes to one of rice, lentils, beans, French beans, and dry peas.

3546. *To test flour*, people in the trade generally knead a small quantity by way of experiment; if good, the flour immediately forms an adhesive elastic paste, which will readily assume any form that may be given to it, without danger of breaking.

3547. Pure and unadulterated flour may likewise be easily distinguished by other methods: seize a handful briskly, and squeeze it half a minute; it preserves the form of the cavity of the hand in one piece, although it may be rudely placed on the table; not so that which contains foreign substances, it breaks in pieces more or less; that mixed with whiting being the most adhesive, but still dividing and falling down in a little time.

3548. *Indian Bread.*—One quart of buttermilk, one quart of Indian-meal, one quart of coarse flour, one cup of molasses; add a little soda and salt.

3549. *Bread making* is an art, the importance of which is too frequently overlooked or underrated. Heavy, sour, hard bread should never be tolerated, because good bread is more palatable, more healthy, and it should be borne in mind, is really much less expensive. There is great saving in baking bread at home, and this saving is greatest when flour is cheapest.

3550. *Good flour* and good yeast are requisites, but the goodness of the bread depends much on the kneading: the more the dough is turned and pressed and worked, the lighter and better the bread will be.

3551. *Proportions.*—Two gallons flour, half pint strong fresh yeast; if home-made, add more.

3552. *The Process.*—Make a hole in the flour, in which pour the yeast mixed with half a pint warm water. Stir in the flour round the edge of this liquid with a spoon to form a thin batter. After stirring it well for two minutes, sprinkle a handful of flour over the top of this batter, lay a warm cloth over it, and set it to rise in a warm place. When it rises so as to crack on the top add four spoonsful fine salt, and begin to form the mass into dough, pouring as much soft, lukewarm water as is necessary to make the flour mix with the batter. When the flour and batter are thoroughly mixed, knead and work the whole till it is light and stiff. Roll into a lump, sprinkle dry flour over it, cover and put into a warm place, when in half an hour it will rise enough for baking. See "Mrs. Hale's Cook Book," page 375. *The quality* depends much on the time of putting the dough in the oven. Dough readily runs into three stages of fermentation. It should be put in the oven during the first or *saccharine*, when if sufficiently baked it will be sweet and wholesome. It afterward becomes sour and heavy. If put in too soon, it will be light and as tasteless as saw-dust.

3553. *Good bread* is marked by fine pores and a sort of network of uniform appearance.

3554. *Keep bread* wrapped in a coarse towel, and where it will not dry up, or in a tight box.

3555. *If sour*, from being mixed over night, melt a tea-spoon of pearlash in a little milk-warm water, sprinkle it over the dough, and in half an hour knead it again.

3556. *Frozen* dough is spoiled.

3557. *Indian* is a good addition to wheat, and requires more water, or make mush of it and then mix in.

3558. *The bitterness* of yeast may be remedied by putting in a little charcoal and then straining it.

3559. *Rye and Indian Bread.*—Mix two quarts of each with three pints boiling milk, table-spoon salt, and stir well. Let it stand till lukewarm, then stir in half pint good yeast. Knead to a stiff dough and put to rise near the fire. When the top is cracked over, make into two loaves and bake moderate two and a half hours.

3560. *Common Yeast.*—Boil a large handful hops in two quarts of water twenty minutes. Strain and pour the liquid into three pints flour. Stir in half a pint strong yeast. Its strength is increased by five tea-spoons brown sugar or five large spoons molasses. Cork the bottles loose till next day, and then tight.

3561. *If turning sour* put tea-spoon pearlash in each bottle.

3562. *Another.*—Boil, peel and mash mealy potatoes, which reduce with water or ale as thin as common yeast. To every pound add two ounces coarse sugar, and when just warm stir in two spoons of yeast. Keep warm till fermentation is over and in twenty-four hours fit for use. Let sponge eight hours before baking.

3563. *Yeast.*—Boil one pound of good flour, a quarter of a pound of brown sugar, and a little salt, in two gallons of water for one hour. When milk-warm, bottle it close; it will be fit

to use in twenty-four hours. One pint of this will make eighteen pounds of bread.

3564. *Pulled Bread.*—Take from the oven an ordinary loaf when it is about *half baked*, and with the fingers, while the bread is yet hot, dexterously pull the half-set dough into pieces of irregular shape, about the size of an egg. Don't attempt to smooth or flatten them—the rougher their shapes the better.

3565. Set upon tins, place in a very slow oven, and bake to a rich brown. This forms a deliciously crisp crust for cheese. If you do not bake at home, your baker will prepare it for you, if ordered. Pulled bread may be made in the revolving ovens.

3566. It is very nice with wine instead of biscuits.

3567. *A great increase on home-made bread*, even equal to one-fifth, may be produced by using bran water for kneading the dough. The proportion is three pounds of bran for every twenty-eight pounds of flour, the bran to be boiled for an hour, and then strained through a hair-sieve.

3568. Indian cake made with buttermilk, or sour milk, with a little cream or butter rubbed into the meal, and a tea-spoonful of pearlash in the milk, is very light and nutritious.

3569. *Use of Lime-water in making Bread.*—It has lately been found that water saturated with lime produces in bread the same whiteness, softness and capacity of retaining moisture, as results from the use of alum; while the former removes all acidity from the dough, and supplies an ingredient needed in the structure of the bones, but which is deficient in the *cerealia.*

3570. The best proportion to use is, five pounds of water saturated with lime, to every nineteen pounds of flour. No change is required in the process of baking.

3571. The lime most effectually coagulates the gluten, and the bread weighs well; bakers must therefore approve of its

introduction, which is not injurious to the system, like alum, &c.

3572. *Cheap Bread.*—Indian meal is the cheapest, and a bushel furnishes more nutriment than the same quantity of wheat. It is also a generally healthy diet, and those who wish to practice close economy should use much of this meal in their families.

3573. It makes excellent puddings and warm cakes, which are much less apt to oppress the stomach than hot wheat bread or short cakes of any kind. And good, light, nourishing bread may be made by using five parts of Indian and one of rye or wheat flour, (see receipts for "Rye and Indian Bread;") which is better than to cook it hot at every meal.

3574. Remember that *four* loaves of *cold bread* will go as far in a family as *five loaves of hot bread.*

3575. *Excellent paste* for fruit or meat pies may be made with two-thirds of wheat flour, one-third of the flour of boiled potatoes, and some butter or dripping; the whole being brought to a proper consistence with warm water, and a small quantity of yeast added when lightness is desired. This will also make very pleasant cakes for breakfast, and may be made with or without spices, fruit, &c.

3576. *Picnic Biscuits.*—Take two ounces of fresh butter, and well work it with a pound of flour. Mix thoroughly with it half a salt-spoonful of pure carbonate of soda; two ounces of sugar; mingle thoroughly with the flour; make up the paste with spoonfuls of milk—it will require scarcely a quarter of a pint.

3577. Knead smooth, roll a quarter of an inch thick, cut n rounds about the size of the top of a small wine-glass; roll these out thin, prick them well, lay them on lightly floured tins, and bake in a gentle oven until crisp. When cold put into dry canisters.

3578. Thin cream used instead of milk, in the paste, will

enrich the biscuits. Caraway seeds or ginger can be added, to vary these at pleasure.

3579. *Rye and wheat flour*, half and half, makes excellent household bread.

3580. *Common Black Cake.*—Beat separately the whites and yolks of three eggs. Mix half a pound of butter with one pound of flour; one tumbler of milk; one tumbler of molasses; one pound of sugar. Then put in the eggs and one and one-half teaspoonful of soda. Wine, currants, raisins and citron to your taste.

3581. *Maize Cake.*—Take six eggs, a paper of Oswego corn starch, one pound of loaf sugar, half pound of butter, half teacup of milk, half a teaspoon of soda, one teaspoon of cream of tartar, the grated rind of the lemon; dissolve the soda in half the milk, and add it the last thing. Bake in an oven as quick as you can make it, without burning.

3582. It is a very delicate cake to bake well. Use flat pans, a little deeper than Spanish bun pans, and put paper over the top.

Composition Cake.—Take three pounds of flour, half pound of butter, one and three-quarter pounds of sugar, three eggs—beat the eggs—add half a pint of yeast to them, half a pint of new milk, three spoonsful of rose-water, and a little cinnamon and cloves; put the butter in the flour and half the sugar, the other half mix with the eggs; make a hole in the flour, pour the ingredients into it; set it to lighten in the morning by the fire; after it is made out into rolls, you may put it into tins, and set it before the fire for an hour or two; when sufficiently risen, bake it in rather a slow oven.

3584. *Ginger Biscuits and Cakes.*—Work into small crumbs three ounces of butter, two pounds of flour; add three ounces of powdered sugar and two of ginger, in fine powder; knead into a stiff paste, with new milk, roll thin, cut out with a cutter; bake in a slow oven until crisp through; keep of a pale color.

3585. Additional sugar may be used when sweeter biscuit is desired. For good ginger-cakes, butter six ounces, sugar eight, for each pound of flour; wet the ingredients into a paste with eggs; a little lemon-grate will give an agreeable flavor.

3586. *Loaf-cake.*—Six pounds of flour, three and one-half pounds of butter, three and one-half pounds of sugar, three pints of milk, six eggs, four pounds of fruit, one-half pint of yeast, three gills of wine, four nutmegs, and one and one-quarter ounce of mace citron. Stir butter and sugar to a froth; boil the milk, and turn in the wine; put the curds and whey *warm*, but not *hot*, into the flour; then add the eggs and yeast, and only one-third of the beaten butter and sugar; let it rise until very light, and then add the remainder of the butter and sugar, and let it rise *again;* when light, put in the spices, fruit, &c., bake it in a *not* very hot oven.

Another receipt leaves out one-half pound of butter and also one-half pound of sugar to the same quantity of flour, fruit, eggs, &c.

3587. *Sponge-Cake.*—Take three-quarters of a pound of white sugar, and pour one-half tumbler of cold water into it, and set it over the fire until it *boils clear;* beat up seven eggs, the whites and yolks separately, and, after the sugar and water has cooled, add the yolks, stirring them well; flavor it with the peel of a lemon, and half the juice of the same; add the whites of the eggs, and then sift in one half pound of flour. This cake has the advantage of remaining moist and spirited, longer than other sponge-cake.

3588. *A Cheap and Quick Pudding.*—Beat up four eggs, add a pint of milk and a little salt, and stir in four large spoonsful of flour, a little nutmeg and sugar to your taste. Beat it well, and pour it into buttered teacups, filling them rather more than half full. They will bake in a stove or Dutch oven in fifteen minutes; and if you have company to dinner, and wish to add a little dish, this is a good and cheap one.

3589. *Sago and Apple Pudding* (very nice).—Let half a pound of sago steep in water enough to cover it until dissolved. This will take about half an hour. Pare and core eight nice

apples without cutting them apart. Fill the middle with sugar, putting in each a little cinnamon. Arrange the apples in a pudding-dish, and pour over them the sago. Let it bake from one to two hours. This is equally as nice, although it does not look so well, if the apples are cut in quarters instead of being left whole, and the sugar and cinnamon sprinkled over them. It is good either cold or hot.

3590. *Pea Pudding.*—Dry a pint or quart of split peas thoroughly before the fire; then tie them up loosely in a cloth, put them into warm water, boil them a couple of hours, or more, until quite tender; take them up, beat them well in a dish with a little salt (some add the yolk of an egg) and a bit of butter. Make it quite smooth, tie it up again in a cloth, and boil it an hour longer. This is highly nourishing.

3591. *Calves' Feet Jelly.*—Boil four feet in four gallons of water till it comes to half a gallon; strain it, let it stand till cold, and skim off all the fat clean. Take the jelly up, leaving the settlings at the bottom. Put your jelly into a clean sauce-pan or skillet, and to every quart of jelly add one pint of wine, half pound of loaf-sugar beaten, the juice of a large lemon; beat up the whites of three eggs to a froth—put all in together—stir well till it boils, let it boil a few minutes, have ready a double flannel bag, pour it in again till it runs clear; have a china bowl with lemon-peel cut as thin as possible, let the jelly drip on the peel and it will give it a flavor, and a fine amber color; with a clean silver spoon fill your glasses.—(See "Mrs. Hale's Cook Book," p. 324.)

3592. *Calves' Feet Jelly made with Gelatine.*—Take three quarts of water, one pint of white wine, six table-spoonsful of brandy; six lemons, peel and all; six eggs, the whites slightly beaten, the shells crushed, and the yolks not used; three pounds of white sugar, four ounces of gelatine. Soak for half an hour the gelatine in one quart of the water. Mix the other ingredients in the other two quarts. Put all together, and let them boil twenty minutes without stirring. Strain it through a flannel bag without squeezing. Wet the mould in cold water. Pour the jelly in, and leave it to cool. Three hours is generally sufficient.

3593. *Meats.*—A few hints, or general rules will be given here. (See "Mrs Hale's New Cook Book" for Receipts, &c.)

3594. *Animal food.*—The quantity of animal food required to sustain the constitution, in its most perfect state, is greatest in the coldest countries, and, decreasing according to the warmth of the climate, when we reach the torrid zone, but a small quantity is needed.

3595. In temperate climates, like our own, the largest quantity is required during the winter.

3596. None should use it freely during the hottest weather, except it be those who labor hard in the open air; it rarely appears to injure such, yet probably it would be best for them to eat less meat and more bread and vegetables during summer. They would not then suffer so much from thirst, which often induces the desire for stimulating liquids.

3597. As a general rule, animal food is more easily and speedily digested than vegetable food of any kind—and this it is which makes meats more heating and stimulating.

3598. The great essentials for the easy digestion of animal food are that the fibres be tender and fine grained.

3599. Of the different sorts of butcher meat, *Pork* is that of which the least quantity should be taken at a time. It requires longer to digest roasted pork than any other kind of meat.

3600. Beef agrees well with most constitutions; it is cheapest in the autumn, but best in the winter season. Many have a distaste to mutton; but for those who relish it, it is a nutritious food, and easy of digestion.

3601. Lamb, veal, and fowls are delicate and healthy diet for the young and sedentary; and for all who find fat meats and those of coarse fibre do not agree with them.

3602. The most economical way of cooking meat is to *boil*

it, if the liquid be used for soup or broth, as it always ought to be.

3603. Baking is one of the cheapest ways of dressing a dinner in small families, and several kinds of meat are excellent done in this way.

3604. Legs and loins of pork, legs of mutton, and fillets of veal will bake to much advantage; especially if they be fat.

3605. Never bake a lean, thin piece, it will all shrivel away. Such pieces should always be boiled or made into soup.

3606. Pigs, geese, and the buttock of beef are all excellent baked.

3607. Meat always loses in weight by being cooked.—In roasting, the loss is the greatest. It also costs more in fuel to roast than to boil—still there are many pieces of meat which seem made for roasting; and it would be almost wrong to cook them in any other way.

3608. The other pieces of the animal are best salted and boiled; or if used fresh, stewed or in soups. Beef should rarely be fried.

3609. *Roasting beef.*—Ten pounds of beef require from two hours to two hours and a-half roasting, eighteen inches from a good clear fire.

3610. Six pounds require one hour and a-quarter to one hour and a-half, fourteen inches from a good clear fire.

3611. Three ribs of beef, boned and rolled, tied round with paper, will require two hours and a-half, eighteen inches from the fire; baste once only.

3612. The first three ribs of fifteen or twenty pounds, will take three hours or three and a-half; the fourth and fifth ribs will take as long, managed in the same way as the sirloin.

Paper the fat and the thin part, or it will be done too much before the thick part is done enough.

3613. When beef is very fat, it does not require basting; if very lean tie it up in buttered paper, and baste frequently and well.

3614. Common cooks are generally fond of too fierce a fire, and of putting things too near to it.

3615. Slow roasting is as advantageous to the tenderness and flavor of meat as slow boiling.

3616. The warmer the weather, and the staler killed the meat is, the less time it will require to roast it.

3617. Meat that is very fat requires more time than other meat.

3618. *Cooking meats.*—The proper manner of preparation is, to cook it till it is entirely *separated from the blood*, and the fibres are rendered soft and easy of digestion.

3619. Lamb is a delicate and tender meat; but it requires to be kept a few days, when the weather will permit—and should be thoroughly cooked to be healthful. Never take lamb or veal from the spit till the gravy that drops is white.

3620. *Preserving meats.*—Salt is the grand preservative of meats; but in using these, care should be taken to soak them if too salt. It is not healthy to eat our food very salt.

3621. In the summer season, particular attention must be observed, lest fresh meat be injured. In the country this care is very necessary.

3622. Be sure to take the kernels out of a round of beef; one in the udder, in the fat, and those about the thick end of the flank.

3623. To salt the meat thoroughly, rub in the salt evenly

into every part, and fill the holes where the kernels were taken out.

3624. A pound and a-half of salt will be sufficient for twenty-five pounds of beef, if you only want to corn it to be eaten in a few days.

3625. In the summer, the sooner meat is salted, after it is cool, the better. In winter, it is better to be kept a few days before salting.

3626. Pork ought not to be allowed to freeze before it is salted for family use.

3627. If you wish beef to look red, rub it first with saltpetre and sugar; half an ounce of each mixed together, is sufficient for twenty pounds of meat.

3628. *Poultry.*—No kind of animal food is so delicate and delicious as the flesh of fowls and birds, and no kind is so generally healthful. Rarely does it disagree with those who are well; even the feeble in constitution, or those debilitated by sickness, find this a most agreeable and nutritious diet.

3629. The white meat of a young turkey, when well boiled, is easier of digestion than that of any other fowl.

3630. In a young turkey, the toes and bill are soft.

3631. A young goose (a very old one is not fit to be eaten) is plump in the breast, and the fat white and soft—the feet yellow, the web of the foot thin and tender.

3632. Ducks, if young, feel very tender under the wing, and the web of the foot is transparent.

3633. The best fowls have yellow legs—if very old, the feet look stiff and worn.

3634. Pigeons should be quite fresh, the breast plump and fat.

3635. Poultry should lie one night after being killed in warm weather to make it tender; in cold weather it may be kept a much longer time to advantage.

3636. Take care of the liquor you have boiled poultry or meat in; in five minutes you may make it into soup.

3637. The good housewife never boils a joint without converting the broth into some sort of soup.

3638. If the liquor be too salt, only use half the quantity, and the rest water; wash salted meat well with cold water before you put it into the boiler.

3639. Fish is much less nutritious than flesh. The white kinds of fish, cod, haddock, flounders, white fish, &c., are the least nutritious; the oily kinds, salmon, eels, herrings, &c., are more difficult to digest.

3640. Shell-fish have long held a high rank as restorative food; but a well-dressed chop or steak is much better to recruit the strength and spirits.

3641. *Hashes.*—All the pieces and bits of cold meat should be minced and warmed; if this is rightly done, the dish is generally a favorite one.

3642. It is best to chop the meat very fine, (gristles and gelatinous matter from the bones may be included;) then make a gravy by putting a lump of butter (what you judge necessary) into a stewpan; when it is hot, add a little flour, and stir it into the butter; then add a teacupful of the broth the meat was boiled in, and a little catsup. Let this boil up, then put in the mince meat, with a little chopped parsley, pepper and salt.

3643. Let it stand and simmer a few minutes covered, but do not let it boil—it hardens the meat to boil it. Lay slices of toasted bread in the dish, and pour the meat and gravy over.

3644. *Meat* may be kept several days in the height of summer, sweet and good, by lightly covering it with bran, and hanging it in some high or windy room, or in a passage where there is a current of air.

VEGETABLES.

3645. The importance of using a portion of vegetable food can hardly be overrated, though to make this our only diet does and must prove injurious, because contrary to man's nature and the arrangements of the Creator.

3646. The farinaceous (or mealy) are far more nutritious than other vegetables; but none are sufficiently so to sustain the constitution under the cares and labors necessary to the full development of the energies of body and mind.

3647. And unless these can be developed and sustained, the rational and moral character of the human race will never be perfected.

3648. Still, though animal food is never, except in peculiar cases of disease, to be wholly abandoned, we must be quite as scrupulous not to neglect the vegetable part of our diet. This is necessary in order to prevent the concentrated diet of flesh from too sudden and stimulating action.

3649. Besides, our nature demands a portion of vegetables to keep the system in proper and healthy order. *A mixed diet* is the only right regimen—the proportions of the different kinds of food vary, with different ages and constitutions, in different climates and seasons; still, in some degree, this rule should never be abandoned.

3650. The very young require a large portion of mild farinaceous vegetables, such as rice, sago, tapioca, and potatoes; the two first are very easy of digestion.

3651. There are three things to be attended to in cooking vegetables; make them sufficiently soft, develop their best

flavor, and correct any rank or disagreeable taste they may have.

3652. These things are very easily accomplished—boil them sufficiently; change the water if they are rank or unpleasant, and add a little salt, sugar or spice, as the case may require.

3653. Vegetables are always best when newly gathered, except the potato; that is better in winter, if well kept.

3654. They are in greatest perfection when in greatest plenty; that is, in their proper season..

3655. Except spinach, all vegetables should be boiled quickly (soft water is much the best) in an open vessel, and carefully skimmed.

3656. *To Clear Vegetables of Insects.*—Make a strong brine of one pound and a half of salt to one gallon of water, into this place the vegetables with the stalk ends uppermost, for two or three hours; this will destroy all the insects which cluster in the leaves, and they will fall out and sink to the bottom of the water.

3657. *Potatoes.*—There are few articles in families more subject to waste, both in paring, boiling, and being actually thrown away, than potatoes; and there are few cooks but what boil twice as many potatoes every day as are wanted; and fewer still that do not throw the residue away as totally unfit in any shape for the next day's meal.

3658. Yet if they would take the trouble to beat up the despised cold potatoes with an equal quantity of flour, they would find them produce a much lighter dumpling or pudding than they can make with flour alone; and by the aid of a few spoonfuls of good gravy, they will provide a cheap and agreeable appendage to the dinner table.

3659. *Bad Butter* may be improved greatly by dissolving it thoroughly in hot water; let it cool, then skim it off, and churn again, adding a little good salt and sugar. A small

quantity can be tried and approved before doing a larger one. The water should be merely hot enough to melt the butter or it will become oily.—(See "Mrs. Hale's Cook Book.")

3660. *Dinners.*—The appearance a dinner-table presents does not depend so much upon a profuseness of viands, as upon the neatness, cleanliness, and well-studied arrangement of the whole. Taste, if well directed, may produce a handsome dinner; whereas three times the amount of money may be expended upon another, and yet not make even a respectable appearance.

HOUSEHOLD MANAGEMENT.

3661. Have you ever observed what a dislike servants have to any thing cheap. They hate saving their master's money. I tried this experiment with great success the other day.

3662. Finding we consumed a vast deal of soap, I sat down in my thinking chair, and took the soap question into consideration, and found reason to suspect we were using a very expensive article, where a much cheaper one would serve the purpose better.

3663. I ordered half a dozen pounds of both sorts, but took the precaution of changing the papers on which the prices were marked before giving them into the hands of Betty.

3664. "Well, Betty, which soap do you find washes best?'

3665. "Oh, please sir, the dearest, in the blue paper; it makes a lather as well again as the other."

3666. "Well, Betty, you shall always have it then." And thus the unsuspecting Betty saved me some pounds a-year, and washed the clothes better.—*Rev. Sidney Smith.*

3667. *Receipt for Obtaining Good Servants.*—Let them observe in your conduct to others just the qualities and virtues that you would desire they should possess and practice as respects you. Be uniformly kind and gentle.

3668. If you reprove, do so with reason and with temper.

3669. Be respectable, and you will be respected by them. Be kind, and you will meet kindness from them.

3670. Consider their interests, and they will consider yours. A friend in a servant is no contemptible thing.

3671. Be to every servant a friend ; and heartless, indeed, will be the servant who does not warm in love to you.

3672. Four important rules :

3673. 1. A suitable place for every thing, and every thing in its place.

3674. 2. A proper time for every thing, and every thing done in its time.

3675. 3. A distinct name for every thing, and every thing called by its name.

3676. 4. A certain use for every thing, and every thing put to its use.

3677. *Oil-cloth* should never be scrubbed with a brush, but after being first swept, it should be cleansed by washing with a large soft cloth and lukewarm or cold water. On no account use soap or hot water, as either will bring off the paint.

3678. *Straw Matting* may be cleaned with a large coarse cloth dipped in salt and water, and then wiped dry : the salt prevents the matting from turning yellow.

3679. *Oil Paintings* hung over the mantle-piece are liable to wrinkle with the heat.

3680. *Ottomans and Sofas,* whether covered with cloth, damask, or chintz, will look much the better for being cleaned occasionally with bran and flannel.

3681. *Furniture* made in the winter, and brought from a cold warehouse into a warm apartment, is very liable to crack.

3682. *Rosewood furniture* should be rubbed gently every day with a clean soft cloth, to keep it in order.

BEVERAGES.

3683. *Water*, pure, sweet, cool water is, undoubtedly, the most healthful drink for thirst.

3684. *Bad water* should be filtered.—(See pages 42, 43.)

3685. *Tea and coffee* are the best and least hurtful stimulants.

3686. Liebig, with his chemical discoveries, demonstrates that they have become necessaries of life to all nations; that they were both originally met with amongst nations whose diet is chiefly vegetable; and by contributing to the formation of bile, their peculiar functions have become a substitute for animal food to a large class of the population whose consumption of meat is very limited, and to another large class who are unable to take regular exercise.

3687. *In making coffee*, observe that the broader the bottom and the smaller the top of the vessel, the better it will be.

3688. *Substitute for Cream in Tea or Coffee.*—Beat the white of an egg to a froth, put to it a very small lump of butter, and mix well. Then turn into it gradually, so that it may not curdle. If perfectly done, it will be an excellent substitute for cream.—(See page 352.)

3689. *Iceland Moss Chocolate—For the Sick Room.*—Iceland moss has been in the highest repute on the continent as a most efficacious remedy in incipient pulmonary complaints; combined with chocalate, it will be found a nutritious article of diet, and may be taken as a morning and evening beverage. *Directions*—Mix a teaspoonful of the chocolate with a tea-

spoonful of boiling water or milk, stirring constantly until it is completely dissolved.

3690. It is not easy to persuade laboring men that *water* is the best beverage. Where the *water is bad,* some corrective or palliative will be had. Then home-brewed *beer* is to be commended.

3691. *Beer and Beverages.*—(See "Mrs. Hale's New Cook Book," page 397.)

3692. *To restore a Barrel of Stale or Sour Beer.*—Put a quarter of a pound of good hops, and two pounds of sound chalk into the bung-hole, stop it close, and in a few days it will be fit for use.

3693. Or, a small teaspoonful of carbonate of soda may be mixed with each quart as it is used.

3694. *To give New Beer the flavor of Old.*—Take out the bung, and put into the cask a handful of pickled cucumbers, or a sliced Seville orange. Either mode will add an apparent six months to the age of the beer.

3695. *Common Beer.*—Two gallons of water, a large handful of hops, fresh gathered spruce or sweet fern, and one quart of wheat bran; boil two or three hours, strain and stir in, while hot, two cups of molasses. When lukewarm, pour into a clean barrel, and add a pint of yeast. Shake it well together, and use next day.

3696. *To give Beer a rich Flavor.*—Put six sea-biscuits into a bag of hops, and put them in the cask.

3697. *Table Beer, cheap and wholesome.*—Eight bottles of water, one quart of molasses, one pint of yeast, one tablespoon of cream of tartar, mixed and bottled in twenty-four hours.

3698. *Table Beer from Sugar.*—To four pounds of coarse brown sugar add ten gallons of water and three ounces of hops. Let the whole boil three-quarters of an hour, and then work it as usual. It should stand a week or ten days before

being drawn, and will improve daily afterward for a moderate time.

3699. *Treacle Beer.*—Take a pound and a half of hops, and boil in thirty-six gallons of water for an hour, then add fourteen pounds of treacle, and a little yeast to work it; ferment, and bottle.

3700. *Summer Drinks.*—Ice may be used in all these beverages.

3701. *Tamarind Drink.*—Boil three pints of water with an ounce and a half of tamarinds, three ounces of currants, and two ounces of stoned raisins, till about a third has evaporated. Strain, add a bit of lemon-peel, which is to be removed in half an hour, then cool.

3702. *Sangaree.*—Mix a bottle of Marsala wine with a bottle and a half of iced water, sweeten with loaf sugar, and flavor with lemon-juice and grated nutmeg.

3703. *Curds and Whey* (cheap method).—Add six grains of citric acid to a wine-glassful of milk, and the result will be a pleasant acidulous whey, and a fine curd.

3704. *Currant Water.*—Take a pound of currants, and squeeze into a quart of water; put in four or five ounces of pounded sugar. Mix well, strain, and ice, or allow to get cold.

3705. *Eau Sucrè.*—Dissolve sugar in boiling water, and drink cold.

3706. *Lait Sucrè.*—Boil a pint of milk, sweeten with white sugar, and flavor with lemon.

3707. *Effervescing Lemonade.*—Boil two pounds of white sugar with a pint of lemon-juice, bottle and cork. Put a tablespoonful of the syrup into a tumbler about three parts full of cold water, add twenty grains of carbonate of soda and drink quickly.

3708. *Quince Syrup.*—Grate quinces, pass the pulp through a sieve, then set before the fire for the juice to settle and clarify; strain, and add a pound of sugar (boiled down) to every four ounces of juice; remove from the fire, and when cold, bottle for use. A tablespoonful of this syrup will flavor a pint of water.

3709. *Effervescing Saline Draughts.*—White sugar powdered eight ounces, tartaric acid two ounces, sesquicarbonate of soda two ounces, essence of lemon a few drops. Mix well and keep in a corked bottle.

3710. *Summer Champagne.*—To four parts of selter water add one of Moselle wine (or hock), and put a teaspoonful of powdered sugar into a wine-glassful of this mixture; an ebullition takes place, and you have a sort of champagne which is more wholesome in hot weather than the genuine wine known by that name.

3711. *An excellent Spring Beverage.*—The yolk of eggs beaten up, lump sugar (*quantum sufficit*), Rhenish wine or not, citric acid, powdered, or tartaric acid (small quantity, exact quantity soon found); one or two drops of essence of lemon on a lump of sugar, to make it mix readily with the water; one quart of water. This is really an excellent, agreeable, and, without the wine, an inexpensive beverage. *Good for bilious complaints.*

USEFUL RECEIPTS FOR FAMILY PRACTICE.

3712. *Prevention of Baldness.*—Eau de Cologne two ounces, tincture of cantharides two drachms, oil of rosemary, oil of nutmeg, and oil of lavender, each ten drops. To be rubbed on the bald part of the head every night.

3713. *Cramp in Bathing.*—For the cure of the cramp when swimming, Dr. Franklin recommends a vigorous and violent shock to the part affected, by suddenly and forcibly stretching out the leg, which should be darted out of the water into the air if possible.

3714. *Biting the Nails.*—This is a habit that should be immediately corrected in children, as, if persisted in for any length of time, it permanently deforms the nails.

3715. Dipping the finger-ends in some bitter tincture will generally prevent children from putting them to the mouth; but if this fails, as it sometimes will, each finger-end ought to be encased in a finger-stall until the propensity is eradicated.

3716. *Flour of Brimstone* is a mild aperient in doses of about a quarter of an ounce; it is best taken in milk.

3717. *To Fill a Decayed Tooth.*—Procure a small piece of gutta percha, drop it into boiling water, then, with the thumb and finger, take off as much as you suppose will fill up the tooth nearly level, and while in this soft state press it into the tooth; then hold on that side of the mouth cold water two or three times, which will harden it.

3718. *Cod-liver oil.*—Cod-liver oil is neither more nor less than cod-oil clarified; and consequently two-thirds of its medicinal qualities are abstracted thereby.

3719. *Cod oil* can be purchased pure at any wholesale oil warehouse, at about one-thirtieth part of the price charged for the so-called cod-liver oil. Many persons who have used cod-oil pure as imported, have found it to answer much better than the cod-liver oil purchased of a druggist.

3720. The best vehicle for taking cod-liver oil in, is new milk; and the disagreeable flavor of the drug can easily be covered by the addition of one drachm of orange peel to every eight ounces of the oil.

3721. *To prevent Lockjaw, from a Nail run into the Foot, or any other injury.*—Pour some turpentine into a tin cup and hold it over a lighted candle or the fire until it boils. It boils at so low a temperature that it will not burn when applied to the skin. Make a swab by wrapping soft muslin or linen round a stick. Dip this in the turpentine and apply it to the wound, rubbing it in carefully for some time. Apply it as warm as can be borne.—(See page 375.)

3722. *Squinting.*—Squinting frequently arises from the unequal strength of the eyes, the weaker eye being turned away from the object, to avoid the fatigue of exertion. Cases of squinting of long standing have often been cured by covering the stronger eye, and thereby compelling the weaker one to exertion.

3723. It is often a question amongst people who are unacquainted with the anatomy and physiology of man, whether lying with his head exalted, or even with the body, is most wholesome. Most, consulting their own ease on this point, argue in favor of that which they prefer.

3724. Now, although many delight in bolstering up their heads at night and sleep soundly without injury, yet we declare it to be a dangerous habit. The vessels through which blood passes from the heart to the head, are always lessened in the cavities when the head is resting in bed higher than the body, therefore, in all diseases attended with fever, the head should be pretty near on a level with the body; and people ought to accustom themselves to sleep thus to avoid danger.

3725. *Dyeing the Hair.*—It may be stated once for all that this practice is decidedly injurious. It may fail altogether in producing the desired result; it is never unattended by a certain amount of unpleasant circumstances, and frequently with evil results.

3726. *In the first place,* the alteration of the abnormal color, so far as the general aspect of the face is concerned, has an effect the very reverse of that which was intended. Every constituent part of man tends to make the human machine one harmonious whole. The figure, the stature, the skin, the hair, the gait, &c.

3727. *Fair hair* is associated with a sanguineous and lymphatic temperament, a fine and white skin, blue eyes, and a soft and mild expression.

3728. *Black hair,* on the contrary, is generally connected with a bilious habit of body, a muscular and nervous temper-

ament, a dark and yellowish skin, lively black eyes, and a bold, proud air.

3729. *Red hair* is associated with a peculiar constitution, although closely approaching to the fair type. In this variety the skin is transparent, fresh, and presents a peculiar limpidity, which belongs exclusively to the color of hair mentioned.

3730. *The Contrast.*—If, then, from the impression that red hair is a disfigurement, it is dyed black, what relation can exist between this new color and the soft blue eye, and a skin so fine and so susceptible, that the sun's rays seem to penetrate it, in the form of those lentiginous spots commonly called freckles.

3731. Be at much pains to keep your children's feet dry and warm. Don't bury their bodies in heavy flannels and wools, and leave their knees and legs naked.

3732. *For Nausea.*—Three drops of hartshorn in a wine-glass of water.

3733. *For Sick Headache.*—One teaspoonful of pulverized charcoal and one-third of a teaspoonful of soda mixed in very warm water.

3734. *Decoction of Sarsaparilla.*—Take four ounces of the root, slice it down, put the slices into four pints of water, and simmer for four hours. Take out the sarsaparilla, and beat it into a mash; put it into the liquor again, and boil down to two pints, then strain and cool the liquor. Dose—a wine-glassful three times a day.

3735. Use—to purify the blood after a course of mercury; or indeed whenever any taint is given to the constitution, vitiating the blood, and producing eruptive affections.

3736. *Cough Syrup.*—Steep for twelve hours or more a teacupful of wild-cherry bark in a quart of water. Add sugar enough to make it quite sweet and let it boil to a syrup.

3737. *Cough Syrup—Very Good.*—Take a large handful

of the herb hoarhound, and the same quantity of boneset. Steep them in a quart of water till it is reduced to a pint. Then strain the tea and mix with it a pint of syrup and a pint of sugar. Let it simmer for three or four hours, skimming it.

3738. *Cure for Pain in the Ear.*—Take a teaspoonful of brown sugar, put it on a shovel or any thing that you can place over hot coals of fire until it gets thick, dissolve it in camphor, and drop it in the ear.

3739. *Gingerbread Aperients.*—Gingerbread, made with oatmeal or with barley flour, is a very agreeable aperient for children. Beware of giving children medicines too frequently.

3740. *For Bowel Complaints.*—One tablespoonful of flour, one ditto of brandy, one ditto of loaf sugar, mixed together.

3741. *Jaundice.*—One pennyworth of allspice, ditto of flour of brimstone, ditto of turmeric; these to be well pounded together, and afterward to be mixed with half-a-pound of molasses. Two table-spoonsful to be taken every day.

3742 *Night Sweats.*—Drink freely of cold sage tea; said to be a certain remedy; or, take elixir of vitriol in a little sweetened water. Dose from twenty to thirty drops.

MISCELLANEOUS RECEIPTS, RULES, ETC.

3743. *To Cure a Soft Corn when between the Toes.*—A small piece of cotton wool applied fresh every morning—gives no inconvenience, is cleanly and efficacious. Castile Soap placed between the toes is both cure and preventive of soft corns.

3744. *Excellent Remedy for Lumbago.*—Dip a piece of flannel in scalding water; wring it out, and sprinkle some turpentine immediately over it, and apply it quickly to the part affected by the pain. Repeat this process a few times, and it will afford certain relief.

3745. *Burns and Scalds.*—Cold water is the readiest, surest, most plentiful, and, for these reasons, the best remedy for burns and scalds. Use it instantly, it will remove pain and smarting; keep a cloth wet and *cold* upon the affected part for five or six hours after the injury has occurred; a blister will never rise, and the skin will be quite free from pain afterward.—(See 109, 110.)

3746. *Scratches.*—Trifling as scratches often seem, they ought never to be neglected, but should be covered and protected, and kept clean and dry, until they have completely healed.

3747. If there is the least appearance of inflammation, no time should be lost in applying a large bread and water poultice, or hot flannels repeatedly applied.

3748. *Ringworm.*—The head to be washed twice a day with soft soap and warm soft water; when dried, the places to be rubbed with a piece of linen rag dipped in ammonia from gas tar; the patient should take a little sulphur and molasses, or some other general aperient, every morning; brushes and combs should be washed every day, and the ammonia kept tightly corked.—(See page 99.)

3749. *Another Cure for Ringworms.*—Common sulphur mixed with butter and pepper till it is a salve: apply twice a day.

3750. *Invaluable Ointment.*—Obtain a pint of real cream, let it simmer over the fire, or on the side, till it resembles butter, and forms a thick oily substance, which may be used as ointment for fresh or old wounds, cracked lips or hands.

3751. *To avoid catching Cold.*—Accustom yourself to the use of sponging with cold water every morning on first getting out of bed. It should be followed with a good deal of rubbing with a wet towel. It has considerable effect in giving tone to the skin, and maintaining a proper action in it, and thus proves a safeguard to the injurious influence of cold and sudden changes of temperature.

3752. *Friction* of the body is one of the most gentle and salutary kinds of exercise, cleaning the skin, dispersing stagnating humors, promoting perspiration, strengthening the fibres, and increasing the warmth and energy of the whole body.

3753. *Depilatory.*—Take of sulphate of sodium, or hydrosulphate of soda, crystallized, three parts; quick-lime in powder, ten ditto; starch, ten; mix. This powder, mixed with a little water, and applied over the skin, acts so rapidly as a depilatory, that if it be removed in a minute or two after its application by means of a wooden knife, the surface of the skin will be entirely deprived of hair.

3754. By this process, the removal of hair becomes so simple, rapid, and safe in operation, that it will possibly supercede the use of the razor in many cases; it is only after several days that the hair begins again to appear.

3755. *Brandy and Salt as a Medicine.*—It is useful in the reduction of inflammation of fractured limbs or bruises, the alleviation of incurable sores, cure of ringworms, headache, toothache, inflammation in the eyes, ague, colic, pains in the side, chilblains, burns and scalds, cancers, sprains, open sores, asthmas, and complaints of the lungs.

3756. Fill a bottle three-quarters full with good brandy, after which add as much salt as will fill the bottle for corking; shake it together twenty minutes; let the salt settle to the bottom, and do not shake it up before using. The clearer it is used the better.

3757. A bottle of this preparation should be constantly kept ready for use, as its virtues have been fully tested. When taken inwardly, for asthma, bowel complaints, &c., mix two spoonfuls with equal quantity of warm water.

3758. *Cancer.*—Five out of six cases have been cured by brandy and salt, described above. The pain is very severe, but temporary.

3759. *Poison,* from vines, may be cured by bathing in whis-

key and cream, and cooling with rye flour; if obstinate, use a strong solution of copperas.

3760. *Simple Remedy for a Pain in the Side.*—At bed-time take a fresh cabbage-leaf, hold it near the fire till quite warm, and then apply it to the part affected, binding it tight with a cloth round the body; let it remain for twelve hours or more, when it will generally be found to have removed the pain.

3761. If not entirely removed, it will be well to repeat the application of a fresh leaf, allowing it to remain on the same time as the first.

3762. *Boils.*—See page 109.

3763. *Carbuncles.*—These should be brought to a head by warm poultices, by fermentation with hot water, or by stimulating plasters. When ripe, they should be discharged by a needle, or the lancet. But this should not be attempted until they are fully proved.

3764. *Constitutional Treatment.*—Stimulating food and drinks, such as ale, porter, champagne and other wines. Strong beef tea should be taken freely—it is very nourishing.

3765. *Carbuncles reduce the strength greatly.*—To recover this, Peruvian bark and sea-bathing are recommended.

3766. *An inflamed bunion* should be poulticed, and larger shoes be worn. Iodine, twelve grains; lard or spermaceti ointment, half an ounce, makes a capital ointment for bunions. It should be rubbed on gently twice or thrice a-day.—See page 97.

3767. *Frost-Bitten Feet.*—Dissolve half pound alum in one gallon warm water, and soak fifteen minutes.

3768. *Valuable Aperient Pills.*—Four drachms Castile soap, four drachms soccotrine aloes; make into the pills with a sufficient quantity of syrup. Two or three may be taken when costive.

3769. *Good Eye-Water.*—Ten teaspoonsful of water, one ditto of brandy, and one ditto of vinegar.

3770. *Lip Salve.*—Spermaceti ointment, half an ounce; balsam of Peru, one quarter of a drachm. Mix. It is not *couleur de rose*, but it will *cure*—often with but a single application. Apply a *thin* coating with the forefinger, just before getting into bed

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3771. *An Excellent Tooth Powder.*—Cuttle-fish, prepared chalk, and orris-root, commingled together in equal quantities, which any one may procure separately from any respectable chemist, and mix himself.

3772. *To remove Tartar from the Teeth.*—Strawberries, ripe, or dried and powdered, are excellent to clean the teeth.

3773. *To drive away Rats.*—Potash strewn around rat holes, will drive the vermin away.

3774. *To kill Flies.*—Cobalt in powder, moistened with hot water, and covered with a little sugar.

3775. *Gum Water.*—It is a fact not generally known that gum should be dissolved in vinegar instead of water, especially when it is wanted for immediate use.

3776. *To remove Water-stains from Black Crape.*—When a drop of water falls on a black crape vail or collar, it leaves a conspicuous white mark. To obliterate this, spread the crape on a table (laying on it a large book or a paper weight to keep it steady), and place underneath the stain a piece of old black silk. With a large camel's hair brush dipped in common ink, go over the stain; and then wipe off the ink with a little bit of old soft silk. It will dry immediately, and the white mark will be seen no more.

3777. *Copper in liquids* may be detected by spirits of hartshorn, which turns them blue.

3778. *Arsenic* may be detected by a solution of blue vitriol dropped into the suspected liquid, which will turn green, if arsenic be present.

3779. *To remove Ink Stains from Silver.*—The tops and

other portions of silver inkstands frequently become discolored with ink, which is difficult to remove by ordinary means. It may, however, be complately eradicated by making a little chlorid of lime into a paste with water, and rubbing it upon the stains.

3780. *To remove Ink Stains from Wood, &c.*—As much oxalic acid as will lay on a sixpence, dissolved in a tablespoonful of hot water; lay some on the wood, and rub hard with a cork until the stain disappears; then wash and repolish. The above will remove the stain, without injury to the color of the wood, mahogany or any other kind. It also cleans the brass-work.

3781. *To Clean Plate.*—Take of cream of tartar, alum, and common salt, each an ounce, and boil in a gallon of water, throw the plate in and boil; when taken out and rubbed dry it will look beautiful. Plate, when laid aside, will generally tarnish, but if cleaned by this method, at stated periods, it will always look well.

3782. *Washing Paint.*—The best method to wash paint is to rub some Bath-brick fine, and when you have rubbed some soap on the flannel, dip it in the brick. This will remove the grease and dirt speedily, without injury.

3783. *Glue Paste.*—Instead of pure water for mixing the flour, use glue-water, to which add some alum and resin to keep it from turning. It must be made very thick.

3784. *Whenever oil is used* for the purpose of artificial light, it should be kept free from all exposure to atmospheric air; as it is apt so absorb considerable quantities of oxygen. If oil is very coarse or tenacious, a very small quantity of oil of turpentine may be added.

3785. *Bugs.*—Spirits of naphtha rubbed with a small painter's brush into every part of a bedstead is a certain way of getting rid of bugs.—(See p. 87.)

3786. *Calcareous Deposits in Boilers.*—In a common tea-

kettle, potatos boiled a few times, will remove the calcareous deposits, and a few oyster-shells, kept constantly in the kettle, will prevent future accumulations.

3787. *To remove the Stoppers of Glass Bottles.*—Dip a piece of linen or cloth in hot water, and wrap it tightly round the neck of the bottle. In a few minutes the stopper will probably be loosened; if not, repeat the application. I have never found this method to fail.

3788. *How to get a Tight Ring off a Finger.*—Thread a needle, flat in the eye, with a strong thread, pass the head of the needle with care under the ring, and pull the thread through a few inches toward the hand; wrap the long end of the thread tightly round the finger, regularly all down to the nail, to reduce its size. Then lay hold of the short end, and unwind it.

3789. The thread repassing against the ring, will gradually remove it from the finger. This never-failing method will remove the tightest ring without difficulty, however much swollen the finger may be.

3790. *Cleaning Knives.*—Mutton fat made hot, and put on a leather or buff-board, with emery-dust—not powder, as that is too sharp—well rubbed in with an old brush, is the best way of giving a knife as good a polish and edge as any razor.

3791. *To restore the Color to Mahogany.*—Wash well with soap and water, and then polish daily with the following oil: Take half an ounce of alkanet root, cut small, and add to a pint of linseed oil; when this has stood for a week, add half an ounce of powdered gum-arabic, and an ounce of shellac varnish; let them stand in a bottle by the fire for a week, then strain. Rub well in.

3792. *Rice Flour Cement.*—An excellent cement may be made from rice flour, which is at present used for that purpose in China and Japan. It is only necessary to mix the rice flour intimately with cold water, and gently simmer it over a fire, when it readily forms a delicate and durable cement, not only answering all the purposes of common paste, but admirably

adapted for joining together paper, cards, &c., in forming the various beautiful and tasteful ornaments which affords much employment and amusement to the ladies.

3793. When made of the consistence of plaster-clay, models, busts, bas-relievos, &c. may be formed of it, and the articles, when dry, are susceptible of high polish, and very durable.—(See p. 70.)

3794. *Oil of Lavender.*—A few drops in a library will keep the books from moulding. A single drop of the same will prevent a pint of ink from mouldiness for any length of time. Paste may be kept from mould entirely by this addition; and leather is also effectually secured from injury by the same agency.

3795. *Ink.*—To make five gallons of good ink, costing but twelve-and-a-half cents, take half a pound of extract of log-wood, and dissolve it in five gallons of hot water, and add half an ounce of bichromate potash. Strain and bottle it.

3796. *Blue Tracing Ink.*—Indigo tied in a flannel bag, moistened with water. Put a lump of white sugar into an egg-cup, and squeeze out the blue on it; the sugar stiffens it, so as to prevent its running, and the color depends on the quantity of water used. Use a quill pen.

3797. *Marking Linen, preparation.*—The preparation used for wetting linen, previous to marking it with ink, is a drachm of salt of tartar in one and a half ounces of water.

3798. *Economy in Candles.*—If you would burn a candle all night, unless you use the following precaution, it is ten to one an ordinary candle will gutter away in an hour or two, sometimes to the endangering the safety of a house. This may be avoided by placing as much common salt, finely powdered, as will reach from the tallow to the bottom of the black part of the wick of a partly-burnt candle, when, if the same be lit, it will burn very slowly, yielding sufficient light for a bed-chamber; the salt will gradually sink as the tallow is consumed, the melted tallow being drawn through the salt, and consumed in the wick.

3799. *Deafness.*—Take three drops of a sheep's gall, warm, and drop it into the ear on going to bed. The ear must be thoroughly syringed with warm soap and water in the morning.

3800. *Times of Application.*—The gall must be applied for three successive nights. It is only efficacious when the deafness is produced by cold. The most convenient way of warming the gall is by holding it in a silver spoon over the flame of a candle.—(See p. 95.)

3801. *For Heartburn, &c.*—Orange juice (of one orange), water and lump sugar to flavor, and in proportion to acidity of orange, bicarbonate of soda, about half a teaspooful. Mix orange juice, water and sugar together in a tumbler, then put in the soda, stir, and the effervescence ensues.

3802. *Remedy for Rheumatism, Lumbago, Sprains, Chilblains, (before they are broken) Bruises, and Bites of Insects.*—One raw egg well beaten, half a pint of vinegar, one ounce of spirits of turpentine, a quarter of an ounce of spirits of wine, a quarter of an ounce of camphor. These ingredients to be beaten well together, then put in a bottle and shaken for ten minutes, after which, to be corked down tightly to exclude the air. In half an hour it is fit for use.

3803. *How to use it.*—To be well rubbed in, two, three, or four times a day.—For rheumatism in the head, to be rubbed at the back of the neck and behind the ears.—(See page 101.)

3804. *Asthma.*—The following is recommended as a relief. —Two ounces of the best honey, and one ounce of castor oil mixed. A teaspoonful to be taken night and morning.—(See page 103.)

3805. *For Scurf in the Heads of Infants.*—Lard, two ounces; sulphuric acid, diluted, two drachms; rub them together, and anoint the head once a day.

3806. *For Moth on the Skin.*—These unpleasant discolorations may be entirely removed by a wash made of borax and vinegar.

3807. *Sunburn.*—A little scraped horseradish mixed in warm milk and rubbed on the face and hands will whiten the skin.

3808. *Cold Cream.*—A piece of sperm candle two inches long, a small cake of white wax, three table spoonsful of fresh sweet oil; just melt it on the fire, stirring it, and take it off stirring it till it is cold. Before it is quite cold stir in any perfume you prefer.—(See page 136.)

3809. *A New Method for the Hair.*—Carefully avoid all lotions and pomades.

3810. Keep the hair and scalp clean by the use of the brush and comb.

3811. Twice a day, at least, comb it out in such a manner that the air may pass through it freely; then, with the fingers, moisten the roots with soft water, at the same time gently rubbing the scalp.

3812. This will not only fasten and renovate the old hair, but actually bring out a fine new suit; the length of time for this purpose varying with the health and constitution of the patient.

3813. Should the hair become too dry, lessen the quantity of water employed, and use a very little cocoanut or perfumed castor oil.

This receipt is also invaluable as a remedy for headache or neuralgia.

3814. *Headache—A Sure Remedy.*—Wet paper, white or brown, bound tightly on the forehead with a bandage or kerchief, the part pressing over the forehead to be also made wet with cold water, though not dripping. This process, if followed nightly, will entirely prevent headaches, and also keep the forehead free from wrinkles. Try it.

3815. *To Promote the Growth of Whiskers, Mustaches, &c.*—The best method to force the growth of whiskers and mustaches, is to shave the parts frequently. Use as a stimulant the ashes of burned tobacco, and bay-water.

3816. *Cosmetics generally.*—(See page 152 and on.)

3817. *The Complexion* can only be preserved in freshness, softness and beauty, by cleanliness, regular exercise, temperance, a plain diet and pure air, and a cheerful temper.

3818. *Offensive Breath.*—Use the concentrated solution of chlorid of soda. From two to five drops of it in a wine-glass full of pure spring water, taken immediately after the operations of the morning are completed.

3819. In some cases the odor arising from carious teeth is combined with that of the stomach. If the mouth be well rinsed with a teaspoonful of the solution of the chlorid in a tumbler of water, the bad odor of the teeth will be removed.

3820. *Breath tainted by Onions.*—Leaves of parsley, eaten with vinegar, will prevent the disagreeable consequences of eating onions.

3821. *Toothache.*—Put a small piece of the inside of a nut-gall into the hollow tooth, and replace by another bit every half-hour, as long as white matter comes away with the piece taken out.

3822. *Black eyes* may be cured by a lotion made of equal parts of gin, vinegar, and cold water mixed. Bathe the eye for ten or fifteen minutes, and repeat in an hour if the pain continues.

3823. *Bilious Disorders.*—If a person is bilious, it is generally owing to errors in regimen. Let these be reformed, and the complaints will cease. But if a person would be always bilious, let him be often taking calomel, or blue pill, or active purges. Lee's antibilious, &c., and he will certainly succeed: the soundest liver will not be proof against such remedies for bile.

3824. *Remedy for Bile.*—The yolks of eggs taken fasting. If required, beat up the egg with a little sugar and lemon-juice.

3825. *Household Hints, etc.*—(See page 210.)

3826. *Hard Water.*—When water is hard, and will not readily unite with soap, it will always be proper to boil it before use.—(See pages 42, 43; also "General Washing," pages 46, 47.)

3827. *Materials for Washing.*—The meal of many kinds of seed may be used for washing, as well as various kinds of bran. That of almonds, which, on account of its oil, is remarkably soft, is employed at present for washing the hands, by those who are desirous of having a white delicate skin. Cloth, the colors of which easily fade, and which will neither endure soap nor hard rubbing, may be washed extremely well with bran. Our fullers, therefore, and stocking-manufacturers, use oats, barley, and bran meal, especially when they wish the cloth to be slowly milled.

3828. *To Wash White Lace.*—Cover a glass bottle with calico or linen, and then tack the lace or collar smoothly upon it, rub it with soap, and cover it with calico. Boil it for twenty minutes in soft water; let all dry together, and the lace will be found to be ready for use.

3829. A long piece of lace must be wound round and round the bottle, the edge of each round a little above the last, and a few stitches to keep it firm at the beginning and end will be found sufficient, but a collar will require more tacking to keep it in its place.—(See page 53.)

3830. *Bleaching Liquid.*—Take one pound of chlorid of lime, empty it into a stone jar, and pour on it one gallon of water; stir it well with a stick for fifteen minutes; then let it settle, and pour off the clear liquor into clean bottles, and cork them up. A tumblerful of this preparation, added to a tubful of water, in which the clothes are rinsed, will add very much to their whiteness.

3831. *Washing Windows.*—The nicest article for washing windows is deer skin, as no particles come off to adhere to the glass and make it look as if washed with feathers.

3832. Wash-leather and a bowl of suds are all that are necessary. Wipe the glass first with the wet cloth or leather, and after it has become dry, with the clean cloth; and it will look clear, and far more so than if rinsed in a dozen pails of water.

3833. *Cleaning Kid Gloves.*—Lay the gloves flat on a towel, and wash them with a piece of clean flannel and the best *yellow* soap, being careful to squeeze the flannel as dry as it is possible to use it. When the dirt is removed, with another piece of flannel wash them lightly with plain milk.—(See page 53.)

3834. *Stains* may be removed from the hands by washing them in a small quantity of oil of vitriol and cold water without soap.

3835. *Cleaning Velvets.*—A very simple method of cleaning velvets is to procure a small square of pipe-clay (such as the soldiers use to clean their uniforms with) and scrape a little off upon the velvet; then take a brush, made of the same material as the carpet-whisk, and lightly brush it off. This raises the pile, and restores the bloom.

3836. *Silk articles* should not be kept folded in white papers, as the chlorid of lime used in bleaching the paper will impair the color of the silk.

3837. *Papier-Mache* articles should be washed with a sponge and cold water without soap, dredged with flour while damp, and polished with a flannel.

3838. *Worsted and Lambs'-Wool Stockings* should never be mended with worsted or lambs'-wool, because the latter being new it shrinks more than the stockings, and draws them up till the toes become short and narrow, and the heels have no shape left.

3839. *In choosing Paper for a room,* avoid that which has a variety of colors, or a large, showy figure, as no furniture can appear to advantage with such. Large figured papering makes a small room look smaller.

3840. *Bright green colors* are dangerous when first put on, because poisons are used in the coloring matter.

3841. *Gilt frames* may be protected from flies and dust by oiled tarlatan pinned over them. Tarlatan already prepared, may be purchased at the upholsterers'. If it cannot be procured, it is easily made by brushing boiled oil over cheap tarlatan. It is an excellent material for keeping dust from books, vases, woodwork, and every description of household ornament.—(See page 18.)

3842. *To Pack Glass or China.*—Procure some soft straw or hay to pack them in, and if they are to be sent a long way, and are heavy, the hay or straw should be a little damp, which will prevent them slipping about. Let the largest and heaviest things be always put undermost, in the box or hamper.

3843. Let there be plenty of straw, and pack the articles tight; but never attempt to pack up glass or china which is of much consequence, till it has been seen done by some one used to the job. The expense will be but trifling to have a person to do it who understands it, and the loss may be great if articles of such value are packed up in an improper manner.

3844. *To Polish Enameled Leather.*—Two pints of the best cream, one pint of linseed oil; make them each lukewarm, and then mix them well together.

DIETETIC MAXIMS.

3845. A healthy appetite is to be acquired by early rising, regular exercise in the open air, a cheerful mind, and abstinence from intoxicating liquors.

3846. The food should be eaten slowly, so that it be well masticated and mixed with the saliva.

3847. Animal food is sooner digested in the stomach than vegetable; but it is more stimulating or heating to the system.

Flesh that has been long salted, dried hams, beef, &c., are less easily digested and less nutritive than fresh meat.

3848. Farinaceous and vegetable food, generally, is slower of digestion than animal, but it is less heating; many kinds of vegetable food are very nutritive.

3849. Solid food, or food of a certain fibrous or pulpy consistence, is more fitted for digestion in the stomach than rich soups, jellies, and all highly concentrated sauces. The latter are rendered more digestible by the addition of bread

3850. Fish are not so nourishing as the flesh of land animals, and with many stomachs entirely disagree. The white fish, when in season, are generally lighter, and less apt to disagree with the stomach than the red.

3851. In summer the food should consist principally of vegetables; in winter, a larger amount of animal matter may be taken, especially by the laborer.

3852. Boiling renders food more tender and digestible, but it deprives it of a considerable portion of its nutritive principle.

3853. Animal food should not be over boiled; vegetables should be boiled until perfectly tender.

3854. Roasting dissipates less of the nutritive parts of the meat. Roasted meat is, therefore, more nourishing than boiled, but much more stimulating.

3855. Bread constitutes a wholesome addition to all our meals. It should be perfectly raised, fully baked, and one day old.

3856. All excess in eating should be avoided, but the quantity of food proper to be taken at one time depends entirely on the constitution, age, habits, degree of health, season of the year, climate, &c. The best guide is to be found in the calls of a healthy appetite.

3857. Health, and strength of body, depend upon the health of the stomach, and consequent perfection of the digestive powers, much more than upon the quantity or even quality of the food taken.

3858. Water is the most wholesome drink. Toast and water, sweetened water, or water with a slight addition of a vegetable acid, are useful diluents during the summer.

3859. Distilled and fermented liquors impede digestion; and, when drank to any great extent, invariably destroy the tone of the stomach, and of the system generally.

3860. The stomach ought not to be over distended with fluids during, immediately preceding, nor after a meal.

3861. When the stomach is very weak, very little fluid should be taken during or after eating. Dry solid food requires more dilution than that which is juicy or fluid.

3862. Exercise should be used in the intervals between meals, but not immediately before or after them.

HINTS TO MECHANICS AND WORKMEN.

3863. If you would avoid the diseases which your particular trades and work are liable to produce, attend to the following hints:

3864. Keep, if possible, regular hours. Never suppose that you have done extra work, when you sit up till midnight, and do not rise till eight or nine in the morning.

3865. Abstain from ardent spirits, cordials, and malt liquors. Let your drink be, like that of Franklin, when he was a printer—pure water.

3866. Never use tobacco in any form. By chewing, smoking, or snuffing, you spend money which would help to clothe you, or would enable you, if single, to make a useful present

to an aged mother or dependent sister; or, if married, to buy your wife a frock, or get books for your children. You also, by any of these filthy practices, injure your health—bringing on headache, gnawing at the stomach, low spirits, trembling of the limbs, and, at times, sleeplessness.

3867. Be particular in preserving your skin clean, by regular washing of your hands, and face, and mouth, before each meal, and of your whole body at least once a week, and by combing and brushing the hair daily.

3868. Always have fresh air in the room in which you work, but so that you shall not be in a draft.

3869. Take a short time in the morning, if possible, and always in the evening, or toward sundown, for placing your body in a natural posture, by standing erect, and exercising your chest and limbs by a walk where the air is the purest.

3870. *The Fireside.*—Admit no rival here. Let your chief joys be shared by her who has forsaken all other hearts and hopes for you; by those who must inherit honor or disgrace from your course of life. Shun the bar-room and the purlieus of intoxication. They are, to thousands, the avenues to infamy.

3871. *The rivals* of our Home are many and fearful. Among the direst is the drinking-place, whether known as porter-house, grog-shop, or tavern. The man who spends his evenings in these Stygian fumes, soon grovels and wallows away half his civilization.

3872. *The tavern-haunter* drinks till he feels himself half-ruined; he is wretched; he drinks to drown his wretchedness; he does drown it, and his soul along with it!

3873. *Home!*—It marks the sacred spot to which the cares and tumult of the world do not reach; and where, except in cases of extreme depravity, its vices do not intrude.

MAXIMS AND MORALS FOR ALL MEN.

3874. The world estimates men by their success in life; and, by general consent, success is evidence of superiority.

3875. Never, under any circumstances, assume a responsibility you can avoid consistently with your duty to yourselves and others.

3876. Base all your actions upon a principle of right; preserve your integrity of character in doing this; never reckon the cost.

3877. Remember that self-interest is more likely to warp your judgment than all other circumstances combined; therefore look well to your duty when your duty is concerned.

3878. Never make money at the expense of your reputation.

3879. Be neither lavish nor niggardly; of the two avoid the latter. A mean man is universally despised; but public favor is a stepping-stone to preferment—therefore generous feelings should be cultivated.

3880. Let your expenses be such as to leave a balance in your pocket. Ready money is a friend in need.

3881. Keep clear of the law; for when you gain your case, you are generally a loser of money.

3882. Never relate your misfortunes, and never grieve over what you cannot prevent.

3883. No man who owes as much as he can pay, has any moral right to endorse for another.

3884. No moneyed man has the moral right to enter on engagements or speculations, hazarding his estate, without the consent of his wife.

3885. Knowing that the end of life is death, every right-

minded man ought to pursue that which is connected with happiness and ultimate bliss.

3886. *Family Tool Chests, Papers, etc.*—Much inconvenience and considerable expense might be saved, if it was the general custom to keep in every house certain tools for the purpose of performing at home what are called small jobs, instead of being always obliged to send for a mechanic, and pay him for executing little things that, in most cases, could be sufficiently well done by a man or boy belonging to the family, provided that the proper instruments were at hand.

3887. The cost of these articles is very trifling, and the advantages of having them always in the house are far beyond the expense.

3888. For instance, there should be an axe, a hatchet, a saw (a large wood-saw, also, with a buck or stand, if wood is burned), a claw-hammer, a mallet, two gimlets of different sizes, two screw-drivers, a chisel, a small plane, one or two jack-knives, a pair of large scissors or shears, and a carpet-fork or stretcher.

3889. Also an assortment of nails of various sizes, from large spikes down to small tacks, not forgetting brass-headed nails, some larger and some smaller.

3890. Screws, likewise, will be found to be very convenient, and hooks on which to hang things.

3891. The nails and screws should be kept in a wooden box, made with divisions to separate the various sorts, for it is very troublesome to have them mixed.

3892. And let care be taken to keep up the supply, lest it should run out unexpectedly, and the deficiency cause delay and inconvenience at a time when their use is wanted.

3893. It is well to have somewhere, in the lower part of the house, a deep, light closet, appropriated entirely to tools and things of equal utility, for executing promptly such little re-

pairs as convenience may require, without the delay or expense of procuring an artisan. This closet should have at least one large shelf, and that about three feet from the floor.

3894. Beneath this shelf may be a deep drawer, divided into two compartments. This drawer may contain cakes of glue, pieces of chalk, and balls of twine of different size and quality.

3895. There may be shelves at the sides of the closet for glue-pots, paste-pots, and brushes, pots for black, white, green, and red paints, cans of painting oil, paint-brushes, &c.

3896. Against the wall, above the large shelf, let the tools be suspended, or laid across nails or hooks of proper size to support them.

3897. This is much better than keeping them in a box, where they may be injured by rubbing against each other, and the hand may be hurt in feeling among them to find the thing that is wanted.

3898. But when hung up against the back wall of the closet, of course each tool can be seen at a glance.

3899. Wrapping paper may be piled on the floor under the large shelf. It can be bought very low by the ream, at the large paper warehouses; and every house should keep a supply of it in several varieties.

3900. For instance, coarse brown paper for common purposes, that denominated ironmonger's paper, which is strong, thick, and in large sheets, is useful for packing heavy articles; and equally so for keeping silks, ribbons, blondes, &c., as it preserves their colors.

3901. Printed papers are unfit for wrapping any thing, as the printing ink rubs off on the articles enclosed in them and also soils the gloves of the person who carries the parcel.

3902. When shopping, if the person at the counter proceeds to wrap up your purchase in a newspaper (a thing rarely attempted in a genteel shop), refuse to take it in such a cover.

3903. It is the business of every respectable shopkeeper to provide proper paper for this purpose; and printed paper is not proper.

3904. Waste newspapers had best be used for lighting fires and singing poultry.

3905. Waste paper that has been written on, cut into slips, and creased and folded, makes very good alumettes or lamp-lighters. These matters may appear of trifling importance, but order and regularity are necessary to happiness.

3906. *A Miniature Tool Box* for little boys is one of the best playthings which can be given them. These can be found at the toy-shops.

HOME INDUSTRY FOR YOUNG LADIES.

3907. *Dress-making.*—When you are about to commence a dress, have the following things in a basket or box at your hand, viz: sewing silk the color of the dress, one or two reels of cotton, fine and coarse, a pair of scissors, not small, a penny inch measure—you can procure one at a trimming shop.

3908. Do not cut without a measure, and always measure all that you have bought or have given you for a dress, before you begin to cut.

3909. The number of yards required depend on the width of the material. Ten yards of any material, eighteen inches wide, will make a dress for a moderate-sized person, with full body, but no trimming on the skirt.

3910. Cut your plain skirt off the piece first, body and sleeves after; leave your trimmings to the last; large turnings are bad and waste the stuff; measure carefully and cut exact.

3911. Six yards of French merino, or any other material of that width, will be found sufficient.

3912. In cutting off the skirt, if the length, we will suppose,

should be forty-two or forty-six inches long, leave four inches more for the hem and turnings at the top.

3913. Cut the lining for the skirt exact to the material, and mind it fits when finished.

3914. Supposing you to have run the seams of the skirt and the seams of your lining, lay the lining on the table, placing the skirt on top, and then tack the seams of your skirt to the lining.

3915. Begin at the first seam, and gradually go on to the last seam; stitch up three pieces together, and fell over the fourth; having done this, hem the bottom. Unless your hem is tacked or pinned, it will be sure to be on the twist and set badly.

3916. Having done this, run on your braid, which must be put on easy or rather full. Attend to this, or you will spoil the set of the skirt. If the skirt is to have flounces, they must be put on before you gauge the top; and while the skirt is on the table, put a white tacking thread round the skirt where each flounce is to be fixed.

3917. *Waist or Body.*—All thin figures ought to wear full bodies; with stout persons it is a matter of taste. Plain bodies require more care in making than full ones. Every small imperfection is seen in plain bodies.

3918. Care and judgment are necessary in fitting the back of the dress over the shoulders; or you will look round-shouldered.

3919. The fault is, usually, in cutting the back of the dress too long; in fitting, pull the fore-body over the shoulder, and shorten the back at the top, till it fits neatly.

3920. If you have no paper pattern that fits, unpick half an old body that suits you; lay your new lining on your cutting board (the top of a candle-box, or any smooth board of sufficient width, will answer to hold in your lap, and is more convenient than standing over a bed or table), put the old

body on top of it, and, with the sharp point of a pair of scissors, prick through both, in the old seams of the pattern.

3921. Prick them *well*, as the marks are apt to rub out. Tack all the body well in the holes round it, before you begin, and be very careful to stitch your body to the tacking thread.

3922. Plain bodies require more care in making than full ones; any small imperfection is seen in plain bodies.

3923. Five out of six persons have their dresses made too tight across the chest; it is a sad fault. Any lady once wearing an easy dress, would never go back to a tight one; to say nothing of its being healthy and beautiful.

3924. Do not select a very stout body lining; it is a common mistake. A stout lining prevents the dress giving or setting to the figure, and is no stronger than one of moderate quality. French dressmakers exclaim at the bad shapes so commonly seen in this country, and charge them to this cause in a great measure. For a white dress, lawn, cambric, chintz, or silk—bleached muslin, at twelve and a half cents a yard, is good enough. For dark merinos, or cashmeres, some prefer dark twilled stuffs.

3925. A yard of lining is the proper quantity for a close dress, a yard and a half for a basque or jacket. Sleeve linings should always be of a thin material.

3926. Great care must be taken with the armholes; do not make them too large or too small; thirteen inches is a nice size for a person not more than twenty-four inches in the waist; fourteen inches is a large size, only required for stout persons.

3927 If you have to alter the armhole, never do it under the arm; in nine cases out of ten it will spoil the dress, and it takes away the free use of the arm; a very small piece cut off round the armhole, excepting underneath, will be all that is necessary.

3928. Do not forget your sleeves must be larger than the armhole an inch and a half; when put in, it never looks the least full, and sets better. The seam of your sleeve must not be even with the seam of your body, but half an inch in front of it.

3929. In cording the neck, do not stretch it; hold the cord tight. The waist must, on the contrary, be pulled well when the cord is put on, or it will never fit; it requires much stretching. The fit of the body often depends on the finishing.

3930. All full bodies are made with quite a straight piece of material, twenty inches long, and eighteen wide; this is half the front; gather it straight at the bottom, and then place it on your tight lining; fix it firmly, and then gather it at the shoulder; but mind and do the bottom gauging first.

3931. To make a body with folds, still have your material twenty inches long, and nineteen wide; the selvage must reach from waist to shoulder.

3932. In putting folds on a body, let it be on the straight, or a good cross; don't let it be neither one nor the other, which is too frequently the case, and always will, as a matter of course, set badly. It makes the folds set better to cover over half the body lining with a plain piece of the dress, as you would wear a stomacher, and then place your folds to meet it, so that a folded body will be in two pieces, the plain part put on first, and the folds after.

3933. A French dressmaker uses *little or no bone*—that is, the splints are so thin as to bend and give to the outline, and to every motion of the figure. The fit should not be made to depend on a stiff fencing of whalebone, the thickness of an old-fashioned busk. If it does not fit nicely without any bone, it never will fit with. This is true of low-bodied evening dresses in particular, the only dresses which at present have long points to the bodice.

3934. The *basque*, properly speaking, is the short skirt or flap, of the body. They require a paper pattern, which can

be furnished to any distance by those establishments who make patterns a business. There are several such in New York and Philadelphia.

3935. It is a good plan to fit the jacket lining to the figure first, before you cut into the material. They should always be left loose to the figure; the whole effect being destroyed if any seams are drawn tight.

3936. *Flounces.*—It will take the same quantity of material if cut either on the straight or the cross. It is a common error to suppose they take more on the cross.

3937. For the fullness of a flounce allow one width on the cross to one width on the straight of your skirt; so that if you have six widths in your skirts, you will have six widths in your flounces on the cross.

3938. If there are three flounces of different widths, let the bottom and widest one have the most fullness; three inches more fullness will be sufficient. If the flounces are on the straight, allow eight widths in the flounce to six widths in the skirt.

3939. A small cord run in at the top of the flounce makes it look neat. Before running the cord in your flounce, join it round the exact size of the skirt; join round likewise your flounces, and full them on the cord as you go on.

3940. Halve and quarter your flounces and also the skirt, and you will find them no trouble to put on.

3941. *Sleeves.*—In making sleeves, with one good pattern, strange as it may seem, you can very easily make six different fashions by cutting your sleeve a little longer or a little shorter, and putting on different trimmings, by making some in a band at the wrist, or leaving them loose, by trimming the loose sleeves on the back or fore part of the arm.

3942. The same shape is, by a dressmaker, altered in the manner I describe, and with a little observation, I think, can be done.

3943. Try and procure a good pattern at first. With taste, one pattern can be made to look like six.

3944. A trimming on the top of the sleeve is a great improvement to thin persons. It should match the bottom part of the sleeve and body-trimming.

3945. Two out of every three American women have one shoulder larger than the other, from stooping in the schoolroom, or the early care of children.

3946. A light layer of cotton on the lining of the opposite shoulder, and covered with the same material, will often conceal, or at least soften this unpleasant defect.

3947. Trimmings down the front of a dress when on the cross, should be cut the same as flounces. In trimming the front of a skirt, it is a good plan to cut a paper the length of the skirt, and pin it on the way you intend to trim, and then tack a tacking thread by it.

3948. Put tackings wherever you mean to trim, before you begin trimming, and lay your skirt on a table to do it; put on all trimmings with a light hand; do not sew them as you would a shirt, it gives them a puckered look. Now mind, a good cross; no attempts at making pieces do, unless they are good corner pieces, that will join well; *you are more sure of making a trimming well if cut all from one piece.*

3949. Before cutting a skirt off that you wish to put tucks in, have a piece of lining or calico at hand, pin the tucks in it as you wish to put them in your skirt.

As a general rule, a tucked skirt takes more than a flounced one, and makes less show for the quantity of material used

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PETS.

Canaries, (see p. 175) *and other Birds.*

3950. *Canaries* become delicate and feeble from improper treatment. Their docility, beautiful plumage, and sweetness of notes render them general favorites. When young, feed on a paste made by bruising rape-seed, blowing the chaff away, mixed with pieces of bread powdered. Give a teaspoonful with a little hard egg and a few drops of water, when turning sour, mix fresh. Add, as they grow older, scalded rape-seed without bruising, chopped almond and chickweed, in hot weather, twice a day.

3951. If sick, give milk of hemp-seed, made by bruising clean seed and straining it through linen into water, taking the water-glass away from the sick. As they advance in age, give rape and canary, and occasionally bruised hemp-seed, taking the soft food away by degrees. Cuttle-fish bone is preferable to loaf-sugar. Cakes, apples, berries, bread soaked, the water squeezed out and milk added, are good, and cabbage occasionally, when in season, is excellent.

3952. *Perches* should be round and strong without crevices or shoulders for insects to breed or harbor, and every corner of the cage should be brushed out and kept thoroughly clean.

3953. *The claws* are sometimes so long as to occasion accidents by catching in the wires; in which case trim them.

Mortar placed in the cage facilitates the production of eggs.

3954. *Teach* singing by separating the bird from the others, so that he may hear no singing, cover his cage for a few days with a thin cloth, then play your flageolet or bird organ several times each day, without harshness. At the end of fifteen days, change the thin cloth for a thick green or red serge, and keep covered till perfect in the air you wish to teach. Feed once a day and night. It is better to teach one good tune well than several imperfectly. The bird will copy all imperfections. *Bad* or dull singers are improved by hearing the more spirited and perfect.

3955. *Surfeit* indicated by swelling of lower part of body, and occasioned by too much chickweed, salad, or soft food. Put alum in the water for three or four days, or put a rusty nail in the water, or common salt. Put the bird, if bad, in lukewarm milk a few minutes, then wash with water, wipe and dry gently.

3956. *Sick birds* may have boiled bread and milk with canary seed boiled in it; lettuce seed; and when moulting, or renewing its feathers, indicated by drooping, putting its head under its wing, dropping small feathers, give nourishing food, as hemp-seed, sponge, biscuit, &c., keep warm and quiet, and keep much in the sun. A cold air or draft is injurious. Put in the water a little refined liquorice.

3957. *American Yellow Bird.*—Beautiful plumage and fine song. They are hardy, and the cage should be often hung out. Give plenty of water, gravel, rich oily seeds, with occasional sunflower and lettuce seeds; leaves of beet, salad, apples, and other fruits.

Gold Finch.—Treat similar to American yellow bird.

3958. *Bullfinches.*—Old birds should be fed with German Paste, No. 2, and occasionally rape-seed. The Germans occasionally give them a little poppy-seed, and a grain or two of rice, steeped in canary wine, when teaching them to pipe, as a reward for the progress they make. Bird organs or flageolets, are used to teach them.

3959. *Cardinal Grosbeak.*—Of splendid plumage and exquisite song. They are hardy and may be kept without fire in a room most of the winter, except in the northern States. Allow frequent air and sun. Feed on rough unhulled rice and hemp, wheat, brown gravel, cracked corn, and millet occasionally, with plenty of water for bathing. These birds are long lived; the Philadelphia Museum having one which died when twenty-one years old.

3960. *Java Sparrow.*—Very delicate, with pretty plumage, but little music. Feed on unhulled rice and canary seed, with plenty of brown gravel.

3961. *Purple Finch or Linnet.*—A delightful songster. Give canary, hemp, millet, and sunflower seeds, with juniper and cedar-berries through the winter, salad and beet-tops in summer. Any other of the Finch tribe may be fed on seeds generally, as the preceding. Perfect cleanliness of the cage, and a constant supply of fresh water and gravel are essential.

3962. *Baltimore Oriole.*—A bird of delightful plumage, and rich brilliant music, well repaying the utmost care. They eat fruit of all kinds, seeds, insects, &c. Give them a large cage, protection from frost, and an abundance of insects. Rear same as mocking bird.

East India Oriole.—Possesses greater musical powers, and is to be treated same as the Baltimore.

3963. *American Mocking Bird.*—The sweet "bird of many voices," imitating almost every variety of notes and sounds imaginable. Feed regularly every morning with Indian meal mixed with milk, not very stiff. Give wild cherries, cedar, elder, poke, and whortleberries. An occasional egg, boiled hard and grated; a little raw minced beef; water for washing as well as drink, with plenty of insects, grasshoppers, spiders, particularly during moulting, when they should be kept quiet and away from cold drafts of air.

3964. *Regular feeding* is important. Adopt a regular hour, say eight o'clock in the morning for feeding and watering, and strictly adhere to it.

If sickly, treat kindly, give spiders daily, and meal-worms; gravel the bottom of the cage and keep very quiet.

The male has a regular line of white feathers in the wing, forming almost a regular curve from tip to shoulder.

3965. *American Robin.*—Sprightly, beautiful, and musical. Treat similar to mocking bird.

3966. *Reed Bird or Bob-o-link.*—Is apt to die in November, if too well fed. Give oats, buckwheat, and canary seed, and abundant water for bathing. At other seasons feed same indiscriminately, as the Finch tribe.

3967. *Chickweed* or salad, which in proper season is excel-

lent, are absolutely poison if given too early, before the bitterness is off, and the cold acrid juices are dissipated by the sun.

Insects from Bird-cages, Drawers, &c.—To keep away insects from birds' eyes, suspend a little bag of sulphur in the cage. This is said to be healthful for birds generally, as well as serving to keep away insects by which they become infested.

3968. *Aviaries.*—The aviary must face the south or west; the ground within may be covered with fine turf, and divided by gravel walks. The evergreens planted inside are, phyllerca, holly, laurel, Portugal laurel, lauristinus, yew, box, and furze. The building should be principally wire, and open to the air, but there should be wings on either side, protected by a roof of wood or glass. In putting goldfinches, linnets, and canaries in an aviary for the purpose of breeding, the males of the two former should be put in with hen canaries as the male birds of the wild species will mate only with canaries. Two or three male canaries may be put amongst them, as the young male birds will learn some of the canaries' notes.

3969. *Gold-fish.*—Great care must be taken of gold-fish, as they are very susceptible; and hence a loud noise, strong smell, violent or even slight shaking of the vessel, will ofttimes destroy them.

3970. *Food for Gold-fish.*—Foreign vermicelli, in minute portions, given at intervals of two or three days, is the very best aliment for gold-fish. A frequent cause of their death is injudicious food, and too much of it; bread kills them, and biscuit is scarcely to be trusted, because the materials of which it is composed are not always pure. Water contains so much nourishment, that if it be changed every day, little food need be given in addition. The most proper situation for a globe of fish is near a window, but not in the direct rays of the sun.

3971. *Squirrels.*—In a domestic state these little animals are fed with hazel nuts, or indeed any kind of nuts; and occasionally bread and milk. They should be kept very clean.

3972. *Birdlime.*—Take any quantity of linseed oil, say half

a pint; put it into an old pot, or any vessel that will stand the fire without breaking; the vessel must not be more than one-third full, put it on a slow fire, stir it occasionally until it thickens as much as required; this will be known by cooling the stick in water, and trying it with the fingers. It is best to make it rather harder than for use. Then pour it into cold water. It can be brought back to the consistency required with a little Archangel tar.

3973. *Pet Dogs* should never be washed with soap. They should be washed with beaten eggs, and afterward washed with warm water. The best way to keep a dog healthy is to let him have plenty of exercise, and not to over-feed him.

3974. *Drink.*—Let them at all times have a plentiful supply of clean water, and encourage them to take to swimming, as it assists their cleanliness.

Washing.—When you wash them do not use a particle of soap, or you will prevent their licking themselves, and they may become habitually dirty.

3975. *Feeding.*—Properly-treated dogs, should be fed only once a day. Meat boiled for dogs and the liquor in which it is boiled, thickened with barley-meal, or oatmeal, forms capital food.

3976. *Sickness.*—The distemper is liable to attack dogs from four months to four years old. It prevails most in spring and autumn. The disease is known by dulness of the eye, husky cough, shivering, loss of appetite and spirits, and fits. When fits occur, the dog will most likely die, unless a veterinary surgeon is called in.

3977. *Remedies.*—During the distemper, dogs should be allowed to run on the grass; their diet should be spare; and a little sulphur be placed in their water. Chemists who dispense cattle medicines can generally advise with sufficient safety upon the diseases of dogs, and it is best for unskillful persons to abstain from physicking them.

3978. *Hydrophobia*—Hydrophobia is the most dreadful of

all diseases. The first symptoms are attended by thirst, fever, and languor. The dog starts convulsively in his sleep, and when awake, though restless, is languid.

3979. *Treatment.*—When a dog is suspected, he should be firmly chained in a place where neither children nor dogs nor cats can get near him. Any one going to attend him should wear thick leather gloves, and proceed with great caution. When a dog snaps savagely at an imaginary object, it is almost a certain indication of madness; and when it exhibits a terror of fluids, it is confirmed hydrophobia.

3980. *Music.*—Some dogs exhibit a great dislike of musical sounds, and when this is the case they are too frequently made sport of. But it is dangerous sport, as dogs have sometimes been driven mad by it. In many diseases dogs will be benefitted by warm baths.

3981. *Mange.*—The mange is a contagious disease, which is difficult to get rid of when once contracted. The best way is to apply to a veterinary chemist for an ointment, and to keep applying it for some time after the disease has disappeared, or it will break out again.

3982. *Cats.*—It is generally supposed that cats are more attached to places than to individuals, but this is an error. They obstinately cling to certain places, because it is there they expect to see the persons to whom they are attached. A cat will return to an empty house, and remain in it many weeks. But, when at last she finds that the family does not return, she strays away, and if she chances then to find the family, she will abide with them.

3983. *Rules, &c.*—The same rules of feeding which apply to dogs apply also to cats. They should not be over-fed, nor too frequently. Cats are liable to the same diseases as dogs; though they do not become ill so frequently. A little brimstone in their milk occasionally, is a good preventive. The veterinary chemist will also prescribe for the serious diseases of cats.

SWIMMING.

3984. The art of swimming is, in fact, very easy, and those persons who take the few brief hints we are about to offer, will soon find themselves rewarded by complete success.

3985. The first consideration is not to attempt to learn to swim too soon. That is, you must not expect to succeed in your efforts to swim until you have become accustomed to the water, and have overcome your repugnance to the coldness and novelty of bathing. Every attempt will fail until you have acquired a certain confidence in the water, and then the difficulty will soon vanish.

3986. *Dr. Franklin's Advice to Swimmers.*—"The only obstacle to improvement in this necessary and life-preserving art, is fear; and it is only by overcoming this timidity that you can expect to become a master of the following acquirements.

3987. It is very common for novices in the art of swimming to make use of corks or bladders to assist in keeping the body above water; some have utterly condemned the use of them; however, they may be of service for supporting the body, while one is learning what is called the stroke, or that manner of drawing in and striking out the hands and feet, that is necessary to produce progressive motion

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3988. The practice I mean is this: choosing a place where the water deepens gradually, walk coolly into it till it is up to your breast; then turn round your face to the shore, and throw an egg into the water between you and the shore; it will sink to the bottom, and be easily seen there if the water is clean.

3989. It must lie in the water so deep that you cannot reach to take it up but by diving for it.

3990. To encourage yourself, in order to do this, reflect that your progress will be from deep to shallow water, and that at

any time you may, by bringing your legs under you, and standing on the bottom, raise your head far above the water; then plunge under with your eyes open, which must be kept open before going under, as you cannot open the eyelids for the weight of water above you; throwing yourself toward the egg, and endeavoring, by the action of your hands and feet against the water, to get forward till within reach of it. In this attempt you will find that the water buoys you up against your inclination; that it is not so easy to sink as you imagine; and that you cannot, but by active force get down to the egg.

3991. Thus you feel the power of water to support you, and learn to confide in that power while your endeavors to overcome it and reach the egg, teach you the manner of acting on the water with your feet and hands, which action is afterward used in swimming to support your head higher above the water, or to go forward through it.

3992. The exercise of swimming is one of the most healthy and agreeable in the world.

3993. Let every boy and girl, if possible, be taught this healthful and life-preserving art.

3994. *Life-Belts.*—An excellent and cheap life-belt, for persons proceeding to sea, bathing in dangerous places, or learning to swim, may be thus made:—

3995. Take a yard and three-quarters of strong jean, double and divide it into nine compartments. Let there be a space of two inches after each third compartment.

3996. Fill the compartments with very fine cuttings of cork, which may be made by cutting up old corks, or (still better) purchased at the cork-cutters.

3997. Work eyelet-holes at the bottom of each compartment to let the water drain out.

3998. Attach a neck-band and waist strings of stout boot-web, and sew them on strongly.

3999. *Another.*—Cut open an old boa, or victorine, and line it with fine cork-cuttings instead of wool.

4000. For ladies going to sea these are excellent, as they may be worn in stormy weather, without giving appearance of alarm in danger. They may be fastened to the body by ribands or tapes, of the color of the fur. Gentlemen's waist-coats may be lined the same way.

4001. *Rules to Govern Persons who have Fallen into Deep Water.*—1. As soon as you find yourself at the surface, whither you are raised by your buoyancy, let your body quickly take its level, when the water will reach a little above your chin.

4002. 2. Place one leg a little forward, the other a little backward, and stretch out your arms on either side under the water. By a slight paddling motion you may regulate the position of your head, and keep the mouth and nose above the surface of the surrounding fluid. Make no efforts, but wait tranquilly until succor arrives. You cannot sink.

4003. 3. Do not lay hold of your companion or assistant, or you will infallibly sink him without benefiting yourself. The best swimmer has no more natural buoyancy than you, and would be sunk by the exertion of very little force.

4004. 4. Remain perfectly passive till your helper seizes you by the hair. Upon this endeavor to second his efforts by throwing yourself on your back. Hold your neck stiff, and let the back of your head sink into the water. Try to propel yourself at this stage by regularly and slowly kicking against the water.

4005. 5. Be careful to keep every part of your body except your face under the water. 6. If two or more persons are immersed together, let them keep near to each other. By this means one boat may save the whole party at once; but if they are dispersed, one at a time only can be picked up.

4006. *Rules to Govern Persons who Attempt to Rescue the Drowning.*—1. In removing a body from the water, whether

into a boat or drawing it along by your own efforts, always keep the face upward.

4007. 2. Recollect that you have no more buoyancy than the person you are attempting to rescue. Therefore do not attempt to raise him out of the water, or you will sink. By a gentle traction, you may draw him toward the boat or landing-place without fatigue or danger.

4008. 3. Always aim at seizing the hind hair of the head, and keep the nape of the neck and your own arm under the water. Thus you will insure his face and your own being above the surface.

4009. 4. Keep your most powerful arm disengaged for swimming, and maintain the other projected forward, having hold, as directed, by the hind hair of the head. In this way you may advance side by side, he floating on his back, and you on your breast.

4010. 5. As you approach the person distressed, let him know by your voice; the prospect of his speedy succor will add to his confidence and strength.

4011. 6. Let all your movements be deliberate, firm, and gentle.

4012. 7. Hold the hat reversed in both hands, the arms and hands of course under water. If a person has presence of mind to accomplish this, the hat will by its buoyancy afford him great assistance, until it becomes saturated and admits the water.

4013. *Riding.*—To ride well on horseback is a healthful and very graceful accomplishment for a lady or gentleman.

4014. *Dress.*—The lady's riding dress should be of a material that rain will not spoil, made to fit easily, and by no means tight.

4015. *The length* should not exceed an ordinary dress more than from *fourteen* to *eighteen inches.*

4016. *To keep the front* of the dress down, sew small quantities of shot in bits of muslin, tack these around the inside of the front breadth of the skirt, at equal distances.

4017. *The Hat* or cap should be as light as possible. Tie on securely.

4018. Have no loose ribbons or strings flying about your cap or dress to frighten the horses.

4019. Fasten your hair up securely, and do not blind your eyes with curls.

4020. *Gloves* should be of a kind that will permit you to handle the reins easily.

4021. *Ride slowly.*—The true secret of learning to ride well is to ride slowly.

4022. *Always ride slowly* when you start, and when returning, you are near home.

4023. *Ride slowly* up hill and down hill. Let the reins be slack when ascending; tighten them as you descend.

4024. *Speak gently* to your horse; pat his neck, and show kindness to him; it is the surest and safest mode of management.

4025. *In crossing* a river, if the horse should have to swim, be sure to let the rains fall loose. Do not attempt to hold up his head, he cannot swim if you do.

4026. *On which side* of a lady should a gentleman ride?—is often asked.

4027. *On the left.*—He can then protect and assist the lady much more advantageously than he would if riding on the right side of her horse.

4028. *A lady's horse* should be fifteen or fifteen and a half hands high. *A hand is four inches.*

4029. *How to judge a Horse.*—If the color be light sorrel, or chestnut, his feet, legs, and face white, these are marks of kindness.

4030. If he is broad and full between the eyes, he may be depended on as a horse of good sense, and capable of being trained to any thing.

4031. As respects such horses, the more kindly you treat them the better you will be treated in return. Nor will a horse of this description stand a whip, if well fed.

4032. If you want a safe horse, avoid one that is dish-faced. He may be so far gentle as not to scare; but he will have too much go-ahead in him to be safe with everybody.

4033. If you want one that will never give out, never buy a large, overgrown one.—(See pages 198, 199.)

HOME COUNSELS.

4034. *Prudence.*—The great end of prudence is to give cheerfulness to those hours which splendor cannot gild, and acclamation cannot exhilarate.

4035. *To be happy at home* is the ultimate result of all ambition; the end to which every enterprise and labor tends, and of which every desire prompts the prosecution.

4036. It is indeed, at home that every man and woman must be known, by those who would make a just estimate of his virtue or felicity; for smiles and embroidery are alike, occasional, and the mind is often dressed for show in painted honor and fictitious benevolence.—*Dr. Johnson.*

4037. *Reading* aloud, speaking, and particularly singing, affords a healthful exercise; while wind-instruments are injurious.

4038. To young ladies the habit of reading aloud has much to recommend it.

4039. *As mere exercise,* it is highly beneficial on account of the strength and vigor which it confers on the chest and lungs; while the mental pleasure derived therefrom is one of the most delightful that can adorn the family circle.

4040. Gathered around the winter's fire, or evening lamp, what could be more cheerful for the aged and infirm, what more instructive to the younger branches, or more exemplary to the careless, than the reading aloud of some entertaining author.

4041. Were females of all ranks to adopt the practice more than they do at present, they would bind to their homes many who are disposed to go in search of unworthy enjoyments, and would add another chain of delightful associations, wherewith to attach the young to the family hearth.

4042. Fatuity from old age cannot be cured; but may be prevented by employing the mind constantly in reading and in conversation in the evening of life.

4043. *A Word to the Young.*—Never be cast down by trifles. If a spider breaks his thread twenty times, twenty times will he mend it again.

4044. Make up your minds to do a thing and you will do it. Fear not if a trouble comes upon you; keep up your spirits, though the day be a dark one

4045. If the sun is going down, look up to the stars. If the earth is dark, keep your eye on Heaven! With God's promises, a man or child may be cheerful

4046. Mind what you run after! Never be content with a bubble that will burst, firewood that will end in smoke and darkness.

4047. Get that which you can keep, and which is worth keeping. Fight hard against a hasty temper. Anger will

come, but resist it strongly. A fit of passion may give you cause to mourn all the days of your life.

4048. Never revenge an injury. If you have an enemy, act kindly to him and make him your friend. You may not win him over at once, but try again. Let one kindness be followed by another, till you have compassed your end. By little and little, great things are completed; and repeated kindness will soften a heart of stone.

4049. Whatever you do, do it willingly. A boy that is whipped to school never learns his lessons well. A man who is compelled to work cares not how badly it is performed.

4050. He that pulls off his coat cheerfully, strips up his sleeves in earnest, and sings while he works, is the man of action.

4051. *The Voice.*—In ordinary conversation, the modulation and proper management of the voice is a point worthy of the attention of young ladies; for a fine and melodious voice, "sweet as music on the waters," makes the heart-strings vibrate to the very core.

4052. The thin, small voice is the most difficult to manage, as it is liable to degenerate into shrillness; and ladies who have this kind of voice must keep strict guard over their temper, when within hearing of any one on whom they may wish to make a favorable impression; for the very idea of a shrill-voiced scold makes us place our hands to our ears.

4053. But with a sweet temper, a pretty little harmonious voice is pleasing enough. Always recollect, however, that affectation, constraint, or striving for effect, is the certain ruin of the prettiest voice in the world.

4054. *Utility of Singing.*—It is asserted, and we believe with some truth, that singing is a corrective of the too common tendency to pulmonic complaints.

4055. Dr. Rush, an eminent physician, observes on this subject:—The Germans are seldom afflicted with consumption;

and this, I believe, is in part occasioned by the strength which their lungs acquire by exercising them in vocal music, for this constitutes an essential branch of their education.

4056. The music master of an academy has furnished a remark still more in favor of this opinion. He had known several instances of persons who were strongly disposed to consumption, who were restored to health by the exercise of their lungs in singing.

4057. *Music.*—Had I children, my utmost endeavor should be to teach them music. Considering I have no ear, nor ever thought of music, the preference seems odd, and yet it is embraced on frequent reflection. In short, my aim would be to make them happy. I think it the most probable method.

4058. *Music* is a resource which will last them their lives unless they grow deaf; it depends upon themselves, not on others; always amuses and soothes, if not consoles; and of all fashionable pleasures, it is the cheapest. It is capable of fame, without the danger of criticism; is susceptible of enthusiasm, and is sure of being gratified in Heaven.—*Horace Walpole.*

4059. *Spectacles—Use of.*—The following rules will enable any one to judge whether his eye-sight may be assisted or preserved by the use of glasses.

4060. When we are obliged to remove small objects to a distance from the eye to see them distinctly.

4061. If we need more light than formerly, as, for instance, if we place the candle between the eye and the object.

4062. If, on attentively considering a neat object, it fatigues the eye, and becomes confused, or has a kind of mist before it.

4063. When small printed letters seem to run into each other, and, by looking steadfastly on them, appear double o treble.

4064. If the eyes are so fatigued by a little exercise, that we are obliged to shut them from time to time.

4065. When these circumstances occur, either separately or together, glasses should be immediately resorted to; otherwise the sight will be liable to be injured by the constant effort required.

PARLOR AMUSEMENTS.

4066. *Riddles.*—It may be asked, What is a riddle? Ah! what is it? That's just the rub! Well, then, it is a queer affair, without shape, size, humanity, compassion, breath, or sex. It is caressed, abused, courted, slighted, jostled, hustled, and, notwithstanding all that is said against it, universally looked upon as a welcome guest when it is not in a dull mood.

4067. The oldest riddle on record is that put forth by Samson (Judges xiv.)—"Out of the eater came forth meat, and out of the strong came forth sweetness." His solution is well known, as it is explained in the same chapter.

4068. *M. Voltaire's Riddle.*—What is the longest, and yet the shortest thing in the world; the swiftest and the most slow; the most divisible and the most extended; the least valued, and the most regretted; without which nothing can be done; which devours every thing, however small, and yet gives life and spirit to all things however great? Answer—Time.

4069. Enigmas may be founded upon simple catches, like conundrums, in which form they are usually called Riddles, such as—

"Though you set me on foot,
I shall be on my head."

4070. The answer is, *A nail in a shoe.*

4071. *Ancient Enigma.*—The ancients fabled a monster whom they named the SPHINX, and whom they described as having the head and breasts of a woman, the body of a dog, the tail of a serpent, the wings of a bird, the paws of a lion, and a human voice

4072. This monster, it was said, was sent into the neighborhood of Thebes by Juno, who wished to punish the family of Cadmus. It was further stated, that he laid this part of Bœotia under continual alarms, *by proposing enigmas*, and devouring the inhabitants if unable to explain them.

4073. Also, that as the calamity of this monster was become an object of public concern, and as the successful explanation of an enigma would end in the death of the Sphinx, Creon promised his crown and Jocasta to him who succeeded in the attempt.

4074. The enigma proposed was this :—
"What animal in the morning walks on four feet, at noon on two, and in the evening on three?"

4075. Œdipus solved the enigma—on which the monster dashed his head against a rock, and perished.

4076. Answer—MAN; in the *morning*, or days of infancy, he crawls, or walks on all-*fours;* at *noon*, or in the days of youth and middle age, he uses *two* feet only; in the *evening*, or in his old age, he requires the support of a staff, so that he may be said to walk upon *three* feet.

4077. *Puzzles* vary very much. One of the simplest that we know is this :—Take away half of *thirteen*, and let *eight* remain.

4078. Write XIII on a slate, or on a piece of paper—rub out the lower half of the figures, and VIII will remain.

4079. What are termed "practical puzzles" are cut out of wood, cardboard, ivory, &c., and may be purchased at the toyshops.

4080. *The three Jealous Husbands.*—This is a very ingenious puzzle, and should be performed with small counters of two different colors.

4081. Three jealous husbands, with their wives, having to

cross a small stream, find a boat without an owner, which is only sufficiently large to carry two persons at a time.

4082. Wanted to know,—how the six persons can transport themselves over the river in pairs, so that no woman shall be left in company with any of the men unless her husband is present.

4083. *Answer.*—At first two wives cross the river, then one returns and takes over the remaining wife; after which she re-crosses, and stays with her husband, and the two husbands cross over. Then a husband and wife come back, and the two husbands cross. Then the wife returns and takes over one of the others, and lastly the husband of the remaining one comes back for his wife.

4084. *Arithmetical Puzzle.*—Arrange the figures 1 to 9 in such order that, by adding them together, they amount to 100.

It is done thus :—

15
36
47
—
98
2
—
100

4085. *The Charade* is a poetical or other composition founded upon a word, each syllable of which constitutes a *noun*, and the whole of which word constitutes another noun, of somewhat a different meaning from those supplied by its separate syllables.

4086. Words which fully answer these conditions are the best for the purposes of charades; though many other words are employed.

4087. In writing, the first syllable is termed "*My first*," the second syllable, "*My second*," and the complete word, "*My whole*."

4088. *Charade.*—

My first a mineral, England can produce,
Much prized for ornament as well as use;

It adds new beauty to our "cottage homes,"
And to the fireside of the wealthy comes.

My second is a rough and boisterous thing,
And much calamity and woe may bring;
My whole is but a little fluttering bird,
Which near to men's abode is often heard.

4089. *Answer.*—Sparrow.

4090. *Ventriloquism.*—The main secret of ventriloquism simply consists in first making a strong and deep inspiration, by which a considerable quantity of air is introduced into the lungs, to be afterward acted upon by the flexible powers of the larynx, or cavity situated behind the tongue and the windpipe; thus prepared, the expiration should be slow and gradual, Any person, by practice can, therefore, obtain more or less expertness in this exercise, in which, though not apparently, the voice is still modified by the mouth and tongue; and it is in the concealment of this aid that much of the perfection of ventriloquism lies.

4091. *Curious Facts.*—If a tallow candle be placed in a gun and be shot at a door, it will go through without sustaining any injury; and if a musket-ball be fired into water, it will rebound and be flattened as if fired against any hard substance

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4092. A musket-ball may be fired through a pane of glass, and if the glass be suspended by a thread it will make no difference, and the thread not even vibrate.

4093. *The Author.*—If you would write to any purpose, you must be perfectly free from without, in the first place, and yet more free from within.

4094. Give yourself the natural rein; think on no pattern, no patron, no paper, no press, no public; think on nothing, but follow your own impulses.

4095. Give yourself as you are, what you are, and how you see it. Every man sees with his own eyes, or does not see at all. This is incontrovertibly true.

4096. Bring out what you have. If you have nothing, be an honest beggar rather than a respectable thief.

4097. *Letter-writing.*—Great care and attention should be devoted to epistolatory correspondence, as nothing exhibits want of taste and judgment so much as a slovenly letter.

4098. *Postage.*—Since the establishment of the cheap postage it is recognized as a rule that all letters should be prepaid; indeed, many persons make it a point of never taking in an unpaid letter.

4099. Always put a stamp on your envelope at the top of the right-hand corner.

4100. Let the direction be written very plain; this will save the postman trouble, and facilitate business by preventing mistakes.

4101. At the head of your letter, in the right-hand corner, put your address in full, with the day of the month underneath; do not omit this, though you may be writing to your most intimate friend three or four times a day.

4102. What you have to say in your letter, say as plainly as possible, as if you were speaking; this is the best rule; do not revert three or four times to one circumstance, but finish up as you go on.

4103. Let your signature be written as plainly as possible (many mistakes will be avoided, especially in writing to strangers) and without any flourishes, as they tend not to add in any way to the harmony of your letter.

4104. A letter of introduction is to be enclosed in an *unsealed* envelope.

4105. In writing notes of invitation, adhere to the old forms, never use any unusual phrase or flourish about it.

4106. In letters of ceremony employ the third person, thus, "Mr. B. requests the honor of Mr. A.," &c.

4107. Romantic ladies are sentimental in their letters; the warm-toned are passionate: both styles are bad; avoid them.

4108. Never be guilty of falsehood by the pen; it is premeditated sin, and seems worse than falsehood of speech.

4109. Use no preamble in your letters, come at once to the point, state what you have to state, and conclude.

4110. Neither sex should enter into long details, or give vent to their feelings in letters. They are always a standing memorial for, or against—we must say generally against, for it requires a peculiar talent to write a good letter.

4111. If you write to a stranger for information, or on your own business, fail not to send a stamped envelope with your address, plainly written; this will not fail to procure you an answer.

4112. If you are not a good writer, it is advisable to use the best ink, the best paper, and the best pens, as, though they may not alter the character of your handwriting, yet they will assist to make your writing look better.

4113. The paper on which you write should be clean, and neatly folded.

4114. There should not be stains on the envelope; if otherwise, it is only an indication of your own slovenliness.

4115. Care should be taken in giving titled persons to whom you write, their proper directions.

4116. For a love letter, good paper is indispensable. When it can be procured, that of a costly quality, gold-edged, perfumed, or ornamented in the French style, may be properly used.

4117. The letter should be carefully enveloped, and nicely sealed with a fancy wafer—not a common one, of course, where any other can be had; or, what is better, plain or fancy sealing-wax. As all persons are more or less governed by

first impressions and externals, the whole affair should be as neat and elegant as possible.

4118. *Young ladies* should never engage in correspondence with young gentlemen who are not near relations, unless with the knowledge and consent of parents and guardians.

4119. *A young lady* should on no account correspond with a *married man.*

4120. *Letters of business* or inquiry may be sometimes properly addressed by a young lady to a *married man*—but when a correspondence becomes necessary, then write to the *wife*, not the husband.

4121. *Dress of Children, etc.*—At home nothing can be more foolish or more hurtful than to load a child with finery which confines it, and which its every movement may destroy and spoil. When at home or in the play-ground, the simplest covering only is necessary, so that it be strong and warm.

4122. It is a vulgar error to suppose that children should be left bare as to their legs, their chest, and arms, and that men and women, who are so much stronger, should be covered.

4123. The truth is, that more children die through the stupidity of their parents in this respect, than from any single disease which can be mentioned.

4124. "I am certain," says a great medical authority, "that half the deaths of children in the middle and upper classes of society is to be attributed to the vanity and ignorance of their parents.

4125. I never see a poor child dressed as a young Highlander, or in any fancy dress, with its uncomfortable look and naked appearance, its poor bare knees and open neck, but I prophecy for that child, whilst I pity, a future of colds, coughs, and throat disease, and a probable death of consumption."

4126. Another important thing in the dress of children, besides keeping them warmly clad, is to keep them well,

though loosely shod. The evils of a tight shoe or boot in a grown-up person is ten times multiplied in a child.

4127. Splay-feet, knock-knees, or bandy-legs, are the consequence, all of which the ignorant would certainly lay to nature, though they are nothing but the production of an art as cruel as it is ignorant, and which is entirely contrary to beauty of Form, or to GOOD TASTE.

4128. *High Shoulders.*—A medical correspondent of an English paper attributes the high shoulder and the lateral curvature of the spine, which so frequently disfigures young girls, to the shoulder straps of their dresses resting below the shoulder and on the muscles of the arm, instead of being on the shoulder, which compels the wearer to be constantly hitching her shoulders to keep up her dress, an action that results in forcing up the shoulder, a distortion of the chest, and a lateral curvature of the spine.

4129. He also states that from the dangerous practice, and the consequent exposure of the chest to the cold, that inward tubercles are formed, and not unfrequently consumption is engendered.

4130. Sudden alterations of heat and cold are dangerous especially to the young and the aged.

4131. *Therefore,* clothing, in quantity and quality, should be adapted to the alternations of night and day, and of the seasons.

4132. *And therefore, also,* drinking cold water when the body is hot, and hot tea and soups when cold, are productive of many evils.

4133. A bed-room, or nursery, ought to be spacious and lofty, dry, airy, and not inhabited during the day.

4134. No servants, if possible, should be suffered to sleep in the same room; and no linen or washed clothes should ever be hung there to dry, as they contaminate the air in which so considerable a portion of infantine life must be spent.

4135. The consequences attending a vitiated atmosphere in such rooms are various, and often fatal.

4136. Change of apparel greatly promotes the secretion from the skin, so necessary to health.

4137. But no damp clothing should be worn, nor damp linen put on the beds. Every thing should be well aired.

4138. Feather-beds should be banished from nurseries, as they are an unnatural and debilitating contrivance.

4139. The windows should seldom be opened at night, but left open the whole day, in fine, clear weather. A door into the sleeping room may be left open.

4140. Lastly, the bedstead must not be placed too low on the floor; nor is it proper to let children sleep on a couch which is made without any elevation from the ground; because the most mephitic and pernicious stratum of air in an apartment, is that within one or two feet from the floor, while the most wholesome, or atmospheric air, is in the middle of the room, and the inflammable gas ascends to the top.

4141. *The power of Kindness.*—Soft words soften the soul.—Angry words are fuel to the flame of wrath, and make it blaze more freely.

4142. Kind words make other people good-natured—cold words freeze people, and hot words scorch them, and bitter words make them bitter, and wrathful words make them wrathful.

4143. There is such a rush of all other kinds of words in our days, that it seems desirable to give kind words a chance among them.

4144. There are vain words, and idle words, and hasty words, and spiteful words, and silly words, and empty words, and profane words, and boisterous words, and warlike words.

4145. Kind words also produce their own image on men's

souls, and a beautiful image it is. They sooth, and quiet, and comfort the hearer. They shame him out of his sour, and morose, and unkind feelings. We have not yet begun to use kind words in such abundance as they ought to be used.

4146. *Gossiping.*—If you wish to cultivate a gossiping, meddling, censorious spirit in your children, be sure when they come home from church, a visit, or any other place where you do not accompany them, to ply them with questions concerning what everybody wore, how everybody looked, and what everybody said and did; and if you find any thing in this to censure, always do it in their hearing.

4147. *Amusements for Children.*—These should be provided. Children must play; a large portion of their waking hours must be passed in action if we would make them healthy and happy.

4148. *School* and study should not occupy more than three hours of the day, till the child is over ten years of age.

4149. *Out door* play is best for children when the season and weather will permit.

4150. *In door*, one of the best exercises for children and youth is *dancing.*

4151. *Let your children learn to dance.*

4152. *The abuse of the art* can be avoided, and its benefits are great.

4153. *Terms used to describe the movements of dances—*

4154. *Balancez*—Set to partners.

4155. *Chaine Anglaise*—The top and bottom couples right and left.

4156. *Chaine Anglaise double*—The right and left double.

4157. *Chaine des dames*—The ladies' chain.

4158. *Chaine des dames double*—The ladies' chain double, which is performed by all the ladies commencing at the same time.

4159. *Chassez*—Move to the right and left.

4160. *Chassez croisez*—Gentlemen change places with partners, and back again.

4161. *Demie Chaine Anglaise*—The four opposite persons half right and left.

4162. *Demie Promenade*—All eight half promenade.

4163. *Dos-à-dos*—The two opposite persons pass round each other.

4164. *Demie Moulinet*—The ladies all advance to the centre, giving hands and return to places.

4165. *La grand chaine*—All eight chassez quite round, giving alternately right and left hands to partners, beginning with the right.

4166. *Le grand rond*—All join hands and advance and retire twice.

4167. *Pas d'Allemande*—The gentlemen turn the partners under their arms.

4168. *Traversez*—The two opposite persons change places.

4169. *Vis-à-vis*—The opposite partner.

4170. *La Galopade*—Is an extremely graceful and spirited dance in a continual chassez. An unlimited number may join; it is danced in couples as waltzing. This is a pretty dance for children

THE TRAINING OF DAUGHTERS, ETC.

4171. Make them religious; the foundation of all excellence is in true piety of the heart.

Mothers, who wish not only to discharge well their own duties in the domestic circle, but to train up their daughters at a later day to make happy and comfortable firesides for their families, should watch well, and guard well, the notions which they imbibe, and with which they grow up.

4172. One main falsity abroad in this age is the notion, that women, unless compelled to it by absolute poverty, are out of place when engaged in domestic affairs.

4173. Let mothers avoid such danger. If they would do so, they must bring up their daughters from the first with the idea that in this world it is required to give as well as to receive, to minister as well as to enjoy; that every person is bound to be useful, practically, literally useful, in his or her sphere.

4174. *Woman's sphere* is the house—her home; its concerns and demands: these are her first duties.

4175. Once really imbued with this belief, and taught to see how much the happiness of woman herself, as well as her family, depends on this part of her discharge of duty, a young girl will usually be anxious to learn all that her mother is disposed to teach.

4176. She will be proud and happy to aid in any domestic occupations assigned to her, which need never be made so heavy as to interfere with the peculiar duties of her age, or its peculiar delights.

4177. If a mother wishes to see her daughter become a good, happy, and rational woman, never let her admit of contempt for domestic occupations, or even suffer them to be deemed secondary. They may be varied in character by station, but they can never be secondary to a woman.

4178. Therefore teach your daughters to keep accounts, so that they may learn the value of money.

4179. *Teach them to work*, that they may not waste their time if rich, nor be helpless if poor

4180. *Teach them cooking*, that they may guard against the waste of servants, and be able to help themselves and others, if necessary.

4181. *Educate the mind*, refine the taste, and exalt the character, by keeping the love of excellence, in all they do, before them.

4182. Then they will be fitted to shine in domestic and social life, and to understand Literature, Art, and Science, as these conduce to goodness and happiness.

4183. *The Mother at Home.*—By the quiet fireside at home, the true mother, in the midst of her children, is sowing as in the vases of the earth, the seeds of plants that shall some time give to Heaven the fragrance of their blossoms, and whose fruit shall be to us a rosary of angelic deeds, the noblest offering that she can make through the ever ascending and expanding souls of her children to her Maker.

4184. Every word that she utters goes from heart to heart with a power of which she little dreams. Philosophers tell us in their speculations that we cannot lift a finger without moving distant spheres.

4185. Solemn is the thought that every word that falls from a mother's lip, every expression of her countenance, may leave an indelible impress upon the young souls about her, and form the underlaying strain of that education which people's Heaven with celestial beings, and gives to the white brow of the angel, next to the grace of God, its crown of glory.

4186. *Teach your Children Obedience.*

It is unspeakable what a blessing it is to a child, what a saving of unhappiness and wickedness in after life, to

be early taught absolute obedience; there must be no hesitating or asking why, but what a mother says must at once be done.

4187. The young twig bends easily, but remember, that in after years it grows hard, and will break before you bend it. A little steadiness at first will save you many years' sorrow.

4188. While you insist upon obedience, however, you must take care that you do not provoke a child, and tempt it to disobedience by unreasonable and foolish commands.

4189. "Provoke not your children to wrath;" and when it is necessary to punish them, see that it never be done violently and in a passion, but as a duty.

4190. *Going in Debt.*—A *lady* should never go in debt, unless she is *sure* of having the means of payment.

4191. *Shopping.*—Never go shopping for amusement—you rob the shopkeeper of his time and waste your own.

4192. *A young lady* at home can find or make pleasant amusements; one of the most healthful is the study of botany or flowers.

4193. *A garden*, or rather the fields and woods, will be filled with new interest if you love the flowers, and can read their history.

4194. *The language of flowers* has been studied and arranged by the people of the East. A few specimens of this may be admitted here, as an amusement for those who are idle or curious.

SENTIMENTS OF FLOWERS.

4195. What each flower enumerated signifies when sent to a friend or lover.

4196. *Almond, flowering*—Concealed love.

4197. *Althea, Frutex*—I am deeply in love.

4198. *Amaranth*—Immortality, or piety.

4199. *Anemone*—Fading hope.

4200. *Arbor-Vitæ*—Unchanging friendship.

4201. *Auricula, Scarlet*—Pride. You are proud.

4202. *Bachelor's Button*—Hope in love.

4203. *Balm*—I long for your society.

4204. *Balsamine*—Impatience; or, pray come.

4205. *Bay Leaf*—I change but in dying.

4206. *Box*—I believe in your constancy.

4207. *Buttercup*—Riches. You are rich.

4208. *Calla Ethiopica*—Magnificent beauty.

4209. *Carnation*—Pride and beauty.

4210. *Camelia Japonica*—Surpassing excellence.

4211. *Cedar*—Think of me.

4212. *China Astar*—Caprice.

4213. *Cypress*—Despair, and without hope.

4214. *Dahlia*—Dignity—I will sustain it.

4215. *Daisy*—Youthful beauty.

4216. *Dandelion*—Coquetry, I accuse you of.

4217. *Eglantine*—I wound to heal.

4218. *Forget-me-not*—True love forever.

4219. *Fox-glove*—Insincerity. You are false.

4220. *Geranium*—Gentility and elegance.

4221. *Gilly-Flower*—Thou art fair.

4222. *Golden Rod*—Encouragement. You will succeed.

4223. *Grass*—Submission.

4224. *Heart's Ease*—Love in idleness.

4225. *Heliotrope*—Devotion. Let us pray for each other.

4226. *Hellebore*—Calumny. You have listened.

4227. *Hollyhock*—Ambition. I seek glory.

4228. *Honeysuckle*—Dost thou love me ?

4229. *Houstonia*—Content ever with thee.

4230. *Hyacinth, Purple*—Sorrow. I am sad.

4231. *Hydrangea*—Heartlessness.

4232. *Ivy*—Wedded love. We are happy.

4233. *Jasmine, White*—I desire a return of my affection.

4234. *Larkspur*—Haughtiness.

4235. *Laurel*—Ambition. I will win.

4236. *Laurustinus*—A token. Pray remember

4237. *Lavender*—Acknowledgment.

4238. *Lilac*—Fastidiousness.

4239. *Lily, White*—Purity and beauty.

4240. *Magnolia*—You are beautiful.

4241. *Marigold*—Jealousy—I have cause.

4242. *Mignionette*—I live for thee.

4243. *Moss*—Patience, or pray wait.

4244. *Oak-Leaf*—Courage. I will endure.

4245. *Passion-Flower*—Piety. Trust in God.

4246. *Periwinkle*—Memory. Never forget.

4247. *Pink*—Household love. I am at home.

4248. *Poppy*—Forgetfulness.

4249. *Primrose*—Neglected merit.

4250. *Rose*—Love, or I love you.

4251. *Rue*—Disdain. Go: never return.

4252. *Saffron*—Marriage—when?

4253. *Snow-Drop*—Faithful in adversity.

4254. *Thyme*—Thriftiness. I am diligent.

4255. *Tulip*—Beautiful eyes. Look on me.

4256. *Violet*—I dream of thee.

4257. *Willow*—Forsaken—never more.

4258. *Wheat*—Prosperity—I wish thee.

4259. *Yew*—Penitence. I am sorry.

4260 *Poisonous Plants.*—Plants with five stamens and one pistil, with a dull-colored lurid carolla, and a nauseous sickly smell, are always poisonous. As *tobacco, henbane, nightshade, thorn-apple.*

Umbelliferous plants of the aquatic kind, and with a nauseous scent, are always poisonous. As *water-hemlock, cow-parsley.*

4261. Plants with *labiate* corollas and seeds in capsules, are frequently poisonous. As *snap-dragon, fox-glove.*

4262. Plants from which issue a milky juice on being broken, are poisonous, unless they bear compound flowers. As *milk-weed, dogbane.*

4263. Plants having any appendage to the calyx or corolla, and eight or more stamens, are generally poisonous. As *columbine, nasturtion.*

4264. Plants having twelve or more stamens, and a nauseous sickly smell, are generally poisonous.

4265. *To ascertain the Length of the Day and Night.*—At any time of the years add twelve hours to the time of the sun's setting, and from the sum subtract the time of rising, for the *length of the day.* Subtract the time of setting from twelve hours, and to the remainder add the time of rising next morning, for the *length of the night.* These rules are equally true for *apparent* time.

4266. *Leap Year.*—Leap years are those that are exactly divisible by four, and also by 400, and not by 100. The year 1900, therefore, will not be a leap year.

4266. *True Time.*—Two kinds of time are used in Almanacs; *clock* or *mean time* in some, and *apparent* or *sun time* in others. *Clock* time is always *right,* while *sun* time *varies* every day. People generally suppose it is twelve o'clock when the sun is due south, or at a properly made noon-mark. But this is a mistake. The sun is seldom on the meridian *at twelve*

o'clock; indeed this is the case only on four days of the year: namely, April 15, June 15, September 1, and December 24.

4268. The time when the sun is on the meridian or at the noon-mark is also given to the nearest second, for every day in the year. This affords a ready means of obtaining correct time and for setting a clock by using a noon-mark, adding or subtracting as the sun is slow or fast.

4269. Old-fashioned Almanacs, which use *apparent* time, give the rising and setting of the sun's *centre*, and make no allowance for the effect of refraction of the sun's rays by the atmosphere. The more modern and improved Almanacs, which use *clock* time, give the rising and the setting of the sun's *upper limb*, and duly allow for refraction.

4270. *Velocity of Sound and Light.*—Sound moves about thirteen miles in a minute. So that if we hear a clap of thunder half a minute after the flash, we may calculate that the discharge of electricity is six and a half miles off.

4271. In one second of time—in one beat of the pendulum of a clock—light travels over 192,000 miles. Were a cannon ball shot toward the sun, and it were to maintain full speed, it would be twenty years in reaching it—and yet light travels through this space in seven or eight minutes.

SIGNS OF THE WEATHER.

4272. *Dew.*—If the dew lies plentifully on the grass after a fair day, it is a sign of another. If not, and there is no wind, rain must follow.

4273. A red evening portends fine weather; but if it spreads too far upward from the horizon in the evening, and especially in the morning, it foretells wind or rain, or both.

4274. When the sky, in rainy weather, is tinged with sea-green, the rain will increase; if with deep blue, it will be showery.

4275. *Clouds.*—Against much rain, the clouds grow bigger, and increase very fast, especially before thunder.

4276. When the clouds are formed like fleeces, but dense in the middle and bright toward the edges, with the sky bright, they are signs of a frost, with hail, snow, or rain.

4277. If clouds form high in the air, in thin white trains like locks of wool, they portend wind, and probably rain.

4278. When a general cloudiness covers the sky, and small black fragments of clouds fly underneath, they are a sure sign of rain, and probably it will be lasting. Two currents of clouds always portend rain, and, in summer, thunder.

4279. *Heavenly Bodies.*—A haziness in the air, which fades the sun's light, and makes the orb appear whitish, or ill-defined —or at night, if the moon and stars grow dim, and a ring encircles the former, rain will follow.

4280. If the sun's rays appear like Moses' horns—if white at setting, or shorn of his rays, or goes down into a bank of clouds in the horizon, bad weather is to be expected.

4281. If the moon looks pale and dim we expect rain; if red, wind; and if of her natural color, with a clear sky, fair weather. If the moon is rainy throughout, it will be clear at the change, and perhaps the rain return a few days after. If fair throughout, and rain at the change, the fair weather will probably return on the fourth or fifth day.

4282. *The Weather and the Blood.*—In dry, sultry weather the heat ought to be counteracted by means of a cooling diet. To this purpose, cucumbers, melons, and juicy fruit are subservient.

4283. We ought to give the preference to such alimentary substances as lead to contract the juices which are too much expanded by the heat, and the property is possessed by all acid food and drink.

4284. To this class belong all sorts of salad, lemons,

oranges, pomegranates sliced and sprinkled with sugar, for the acid of this fruit is not so apt to derange the stomach as that of lemons; also cherries and strawberries, curds turned with lemon acid or cream of tartar; cream of tartar dissolved in water—lemonade and Rhenish or Moselle wine mixed with water.

AIR—ITS EFFECTS ON LIFE.

4285. What is carbonic acid gas?

4286. A gas formed by the union of carbon and oxygen. It used to be called "fixed air."

4287. Under what circumstances does carbon most readily unite with oxygen.

4288. 1. When its temperature is raised: thus, if carbon be red-hot, oxygen will most readily unite with it; and 2. When it forms part of the fluid blood.

4289. Why do oxygen and carbon so readily unite in the blood?

4290. Because the atoms of carbon are so loosely attracted by the other materials of the blood, that they unite very readily with the oxygen of the air inhaled.

4291. Is carbonic acid wholesome?

4292. No: it is fatal to animal life: and (whenever it is inhaled) acts like a narcotic poison—producing drowsiness, which sometimes ends in death.

4293. How can any one know if a place be infested with carbonic acid gas?

4294. If a pit or well contain carbonic acid, a candle (let down into it) will be instantly extinguished. The rule, therefore, is this—Where a candle will burn, a man can live; but what will extinguish a candle, will also destroy life.

4295. Why does a miner lower a candle into a mine before he descends?

4296. Because the candle will be extinguished, if the mine contains carbonic acid gas; but if the candle is not extinguished, the mine is safe, and the man may fearlessly descend.

4297. Why does a crowded room produce headache?

4298. Because we breathe the air vitiated by the crowd.

4299. Why is the air of a room vitiated by a crowd?

4300. Because it is deprived of its due proportion of oxygen, and laden with carbonic acid.

4301. How is the air of a room affected thus by a crowd?

4302. The elements of the air (inhaled by the breath) are separated in the lungs;—the oxygen is converted in the blood into carbonic acid; and the carbonic acid (together with the nitrogen) is then thrown off by the breath into the room.

4303. Why is country air more pure than the air in cities?

4304. 1. Because there are fewer inhabitants to vitiate the air: 2. There are more trees to restore the equilibrium of the vitiated air: and 3. The free circulation of air keeps it pure and wholesome; in the same way as running streams are pure and wholesome, while stagnant waters are the contrary.

4305. Why does the scantiness of a country population render the country air more pure?

4306. Because the fewer the inhabitants the less carbonic acid will be exhaled; and thus country people inhale pure oxygen, instead of air impregnated with the narcotic poison, called carbonic acid gas.

4307. Why do trees and flowers help to make country air wholesome?

4308. 1. Because trees and flowers absorb the carbonic acid generated by the lungs of animals, putrid substances, and other noxious exhalations: and 2. Trees and flowers restore to the air the oxygen which has been inhaled by man and other animals.

4309. Why is the air of cities less wholesome than the country air?

4310. 1. Because there are more inhabitants to vitiate the air: 2. The sewers, drains, bins, and filth of a city, very greatly vitiate the air: 3. The streets and alleys prevent a free circulation: and 4. Besides all this, there are fewer trees to absorb the excess of carbonic acid gas, and restore the equilibrium.

4311. Why are persons who live in close rooms and crowded cities generally sickly?

4312. Because the air they breathe is not pure, but is (in the first place) defective in oxygen: and (in the second) impregnated with carbonic acid gas.

4313. Where does the carbonic acid of close rooms and cities come from?

4314. From the lungs of the inhabitants, the sewers, drains, and other like places, in which organic substances are undergoing decomposition.

4315. What becomes of the carbonic acid of crowded cities?

4316. Some of it is absorbed by vegetables; and the rest is blown away by the wind, and diffused through the whole volume of the air.

4317. Does not this constant diffusion of carbonic acid affect the purity of the whole air?

4318. No; because it is wafted by the wind from place to place, and absorbed in its passage by the vegetable world.

4319. What is choke damp?

4320. Carbonic acid gas accumulated at the bottom of wells and pits, which renders them noxious, and often fatal to life.

4321. *Offensive Cesspools.*—Sulphate of zinc can be purchased of any druggist, in the form of a salt, and a pound of it dissolved in two pails of warm water and thrown into an offensive cesspool, will soon deodorize it.

4322. *Directions for Pruning Vines.*—In pruning always cut upward, and in a sloping direction.

4323. Always leave an inch of blank wood beyond a terminal bud, and let the cut be on the opposite side of the bud.

4324. Prune so as to leave as few wounds as possible, and let the surface of every cut be perfectly smooth.

4325. In cutting out an old branch, prune it even with the parent limb, that the wound may heal quickly.

4326. Prune so as to obtain the quantity of fruit desired on the smallest number of shoots possible.

4327. Never prune in frosty weather, nor when a frost is expected.

4328. Never prune in the months of March, April, or May; pruning in either of these months causes bleeding, and occasions thereby a wasteful and injurious expenditure of sap.

4329. Let the general autumnal pruning take place as soon after the 1st of October as the gathering of the fruit will permit. Lastly. Use a pruning-knife of the best description, and let it be, if possible, as sharp as a razor.

4330. *Curious Properties of some Figures.*—To multiply by 2 is the same as to multiply by 10 and divide by 5.

4331. Any number of figures you may wish to multiply by

5, will give the same result if divided by 2—a much quicker operation than the former; but you must remember to annex a cipher to the answer where there is no remainder, and where there is a remainder annex a 5 to the answer.

4332. Thus, multiply 464 by 5, the answer will be 2320; divide the same number by 2, and you have 232, and as there is no remainder you add a cipher. Now, take 357, and multiply by 5—the answer is 1785. On dividing 357 by 2, there is 178, and a remainder; you therefore place 5 at the right of the line, and the result is again 1785.

4333. There is something more curious in the properties of the number 9. Any number multiplied by 9 produces a sum of figures which, added together, continually makes 9. For example, all the first multiples of 9, as 18, 27, 36, 45, 54, 63, 72, 81, sum up 9 each. Each of them multiplied by any number whatever produces a similar result; as 8 times 81 are 648, these added together make 18, 1 and 8 are 9. Multiply 648 by itself, the product is 419,904—the sum of these digits is 27, 2 and 7 are 9. The rule is invariable.

4334. Take any number whatever and multiply it by 9; or any multiple of 9, and the sum will consist of figures which, added together, continually number 9. As $17 \times 19 = 306$, 6 and 3 are 9; $117 \times 27 = 3159$, the figures sum up 18, 8 and 1 are 9; $4591 \times 72 = 330{,}552$, the figures sum up 18, 8 and 1 are 9. Again, $87{,}363 \times 54 = 4{,}717{,}422$; added together, the product is 27, or 2 and 7 are 9, and so always.

4335. *Technical terms relative to Books, Engravings, etc:*

4336. Books are distinguished according to the number of pages in a sheet of the paper on which they are printed; as, *two* leaves, four pages, *folio; four* leaves, eight pages, *quarto,* or 4*to.; eight* leaves, sixteen pages, *octavo,* or 8*vo.; twelve* leaves, twenty-four pages, *twelves, duodecimo,* or 12*mo.; sixteen* leaves, thirty-two pages, *sixteens,* or 16*mo.; eighteen* leaves, thirty-six pages, *octodecimo, eighteens,* or 18*mo.*

4337. The *size* of a book is determined by the size or

designation of a sheet of the paper on which it is printed; as *foolscap* 4*to.*, or 8*vo.*; *post* 8*vo.*; *demy* 8*vo.*; *royal* 8*vo.* &c.

4338. The letters A, B, C, D, &c., and the letters and figures, A 2, A 3, A 4, &c., at the bottoms of the first, third, fifth, seventh, &c., pages of printed sheets, are marks for directing the printer, bookseller, and bookbinder in collecting, collating, folding and placing the sheets in proper order. These marks are usually termed *signatures.*

4339. When the page of a book is divided into two or more parts by a line or lines, or blank spaces, running from the top to the bottom, each division is called a *column.* This work is printed in *columns.*

4340. *Vignette* is a French term, designating the ornamental engraving, without a border, which is sometimes placed in the title-page of a book, at the head or termination of a chapter, &c.

4341. *Xylography* is the art of engraving upon wood; *etching, mezzotinto, aquatinta,* are varieties of the art of engraving upon copper. Until within these few years, copper and wood were the substances employed by engravers for book illustrations. For certain purposes, wood (box-wood) continues in the highest repute: but copper has been in a great measure superseded by steel, where a large number of impressions is required.

4342. *Electrography* is a newly-discovered electrical process, by which one copper plate may be expeditiously produced, in *fac simile* from another.

4343. *Glyphography* is a somewhat similar process, by which, through the action of the *voltaic battery,* plates may be obtained from drawings, affording impressions *ad libitum.*

4344. *Lithography* is the art of taking impressions from drawings or writings made on prepared and highly-polished calcareous stone.

4345. *Zincography* is an adaptation of the same principle

to plates of zinc. All these processes are now extensively employed in the illustrations of books for various purooses.

LAWS--IMPORTANCE OF LAWS.

4346. Every citizen should earnestly and constantly bear in mind the important fact, that his only safety for person, property, liberty and life, is in the absolute supremacy of the constitution and the laws.

4347. *Betting on Elections.*—This is an extensive and pernicious evil, alike injurious to the citizen and to the purity of elections. All are interested in its suppression ; let all then unite in getting up and presenting petitions to the several State legislatures for the passage of a law similar to that introduced into the Legislature of Missouri against betters and stakeholders, and fining both to the amount of money or property bet. Also punishing by fine any person who may publish a bet, or assist in any way in making it.

4348. A decision in Ohio makes proprietors of stages responsible for passengers' baggage, notwithstanding their caution of " All baggage at the risk of the owners."

4349. *A Non-resident.*—A person having a place of business in a city or town, and boarding and lodging in another, is a non-resident in his place of business.

4350. Titles of land derived under sales for taxes are declared good by Supreme Court of Illinois.

4351. A salesman receiving a per centage is not thereby constituted a partner.

4352. Breach of trust is where valuables are received in the course of employment, for or in the name of the employer, and embezzled ; but if the valuables have come to the possession of the employer, the offense is larceny.

4353. A husband is liable for goods furnished his wife, if,

from ill-treatment or other sufficient cause, she does not live with him; but if she leave him from unjustifiable causes, he is not liable even for necessaries, whether the tradesman knows of such separation or not.

4354. Erasing or altering an endorsement on a note is forgery.

4355. A town is liable for damages occasioned by any obstruction placed on the road by human agency, and is bound to make roads safe and convenient for travelers.

4356. *Common Carriers.*—The owners of a steamboat are responsible to shippers of goods as common carriers. Common carriers, if they make a wrong delivery, are responsible for any loss.

4357. The owners of goods must have them properly marked, and entered in carriers' books; and if he neglects to do it, he must bear the loss.

4358. An account current rendered, and accepted without objection being made in a reasonable time, precludes objection afterward, and makes it a stated account.

4359. A will dictated and taken down in pencil only, and signed by two witnesses, is valid, if deceased was in sound mind when he gave the instructions.

4360. *Wills.*—A will is an instrument in writing, executed in form of law, by which a person makes a disposition of his property, to take effect after his death.

4361. A codicil is a supplement or addition to a will, and by which the will is altered, explained or added to, but in no case wholly revoked.

4362. A bequest to a subscribing of a will is void.

4363. Let every man about to make a will endeavor to make it as concise as possible; and if he employs a lawyer, agree to pay him, not by the length, but by the transaction.

Let him keep in his mind that every trust or use he creates, also creates the danger of a lawsuit. *Every will should be dated on the day it is executed.*

4364. It is also of the first importance that it should be *prepared without blot or alteration, or erasure,* for it is an instrument that may not come into operation for many years—of a surety not until the party best capable of explaining it, the testator himself, is removed from the scene of evidence, and possibly not until both the writer of it, and the witnesses, have either ceased to exist, or whose locality is not to be traced.

4365. *Homestead Exemption.*—It has been truly, as well as eloquently said, that "Women are the Corinthian pillars that adorn and support society; the institutions that protect women throw a shield also around children; and where women and children are provided for, man must be secure in his rights."

4366. From this radical law of society, which makes the best interests of humanity dependent on the integrity and comfort of the Homes of the People, arises the necessity that legislation should protect the sacredness, and insure the safety of the places where women and children dwell. We hope that every State in our broad land will take heed of this paramount duty.

The following extracts exhibit the various qualifications of the Homestead Exemption Laws now in force in the several States named :—

4367. *Maine.*—A lot of land, a dwelling-house, and outbuildings thereon, or so much thereof as shall not exceed $5000 in value.

4368. *Vermont.*—The homestead of every housekeeper, or head of a family, to the value of $500, and the yearly products thereof.

4369. *Massachusetts.*—The lot and buildings thereon occupied as a residence, to the value of $5000.

4370. *New York.*—The lot and buildings thereon occupied as a residence, to the value of $5000.

4371. *Maryland.*—All real estate acquired by marriage during the life of a wife, from execution for debt of husband.

4372. *Georgia.*—Twenty acres of land, including dwelling and improvements, not to exceed $200; and the additional amount of five acres for each child under fifteen years of age.

4373. *Florida.*—Forty acres of land, when not in any town or city, and provided such does not exceed in value $400.

4374. *Alabama.*—Forty acres of land to every farmer; and to every housekeeper, residing in a town or city, a house and lot not to exceed $3000 in value.

4375. *Texas.*—Two hundred acres of land (when not in any town lots), not to exceed $2000 in value.

4376. *Ohio.*—Every family a homestead not to exceed $500 in value.

4377. *Michigan.*—Forty acres, with dwelling-house and appurtenance, when not in town or city; if in town or city, a lot or dwelling-house not to exceed in value $1500.

4378. *Illinois.*—Lot of ground and building occupied as a residence, not exceeding in value $1000.

4379. *Iowa.*—Forty acres of land, not in town or city, or a town or city lot not exceeding in amount one-fourth of an acre.

4380. *California.*—The homestead, consisting of a quantity of land, together with the dwelling-house thereon and its appurtenances, and not exceeding in value the sum of $5000.

4381. *New Jersey.*—A homestead to each head of a family, being the family residence, to the value of $500; not to be assets in the hands of an administrator, but to remain for the benefit of the widow, and until the maturity of the minor child.

4382. *South Carolina.*—A homestead of fifty acres of land, including the dwelling-house and appurtenances, not to exceed $500 in value, and to extend to any property situated within the limits of any city or town corporate.

4383. *Arkansas* has an homestead exemption.

4384. *Pennsylvania.*—The amount of $300, in real or personal property.

4385. Other States may have exemption laws, but I have not found any record.

4836. *Naturalization Laws.*—Congress alone has power to make or regulate the laws of naturalization.

4387. An alien must renounce, in court, allegiance, &c., to any foreign power, and declare his intention of becoming a citizen at least two years before admission. Must swear to support the Constitution, renounce any hereditary title or order of nobility, and must have resided five years in the country, and satisfy the court that he has behaved as a man of good moral character, attached to the principles of the Constitution of the United States, and well disposed to the good order and happiness of the same.

4388. Children of naturalized citizens, if under twenty-one years of age at the time of their parents' naturalization, shall, if dwelling in the United States, be considered as citizens. An alien, having declared his intention, and dying before he was naturalized, his widow and children, on taking the oaths prescribed, shall be entitled to all the rights of citizenship.

4389. *Receipts.*—A receipt is not conclusive evidence of payment, but it throws the burden of proof upon him who attempts to impeach it.

4390. Receipts may be either in full of all demands, for a special account, in part payment of an account, or for a special purpose.

4391. The arrangement of the wording of a receipt is not important, if the object and time be distinctly stated in it.

4392. A general receipt "in full of all demands" is a discharge of all debts except special debts under seal.

4393. The legality of signatures in pencil has ever been questioned.

4394. Account books, notes or receipts, written in pencil, would not be respected in any law court.

4395. In those States in which exemption laws are enforced, the drawer of a promissory note may expressly waive all right of benefit from those laws. Conditions which the subscriber may add to a "note of promise," if accepted by the receiver, holds good in every State, unless they directly contravene local laws.

PHRENOLOGY.

4396. The word is derived from two Greek words, signifying *mind* and *doctrine* or *discourse*.

4397. *Phrenology* designates that system of mental philosophy which treats of the special manifestation of minds.

4398. *Phrenology* teaches that the faculties of the mind have, each one, its special organ or place in the brain; and that these organs, in their aggregate, constitute the brain. Therefore the brain is the organ of the mind.

4399. *Powers of Mind.*—These are manifested by the size and developments of the brain—when temperament, health, and opportunities are equal.

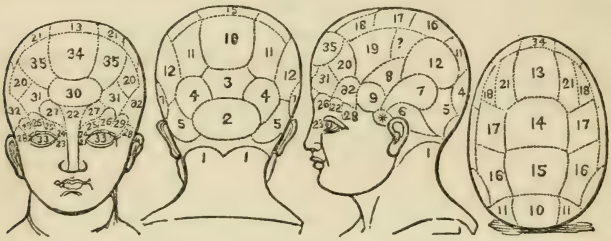
4400. The size of each organ measures the power of the faculty which is exercised by means of it.

4401. Each organ desires its own active gratification in

proportion to its development, the larger controlling the smaller.

4402. This is a brief outline of the science or study. The general principles are, more or less, interwoven into our literature, and influence our systems of education; therefore the following may be found interesting and curious, if not useful.

4403. *Heads:—*



4404. *Faculties of the Mind.*

4405. *Of the Feelings or Affective Faculties,* usually styled *propensities.*

4406. *Alimentativeness*—Gives appetite for food. It has been a question whether this organ was in the brain or the stomach, therefore it is not numbered on the head.

4407. 1. *Amativeness*—Produces sexual love, desire, physical love.

4408. 2. *Philoprogenitiveness*—Love of children and young beings.

4409. 3. *Concentrativeness*—Continues the mind on emotion or ideas.

4410. 4. *Adhesiveness*—Friendship, sociability, attachment generally.

4411. 5. *Combativeness*—Courage, opposition, intrepidity, quarrelsomeness.

4212. 6. *Destructiveness*—Desire to destroy, torment; harshness, cruelty.

4413. 7. *Secretiveness*—Concealment, prudence, cunning, hypocrisy.

4414. 8. *Acquisitiveness*—Desire to acquire property; avarice, selfishness.

4415. 9. *Constructiveness*—Mechanical genius, desire to build.

SENTIMENTS—INFERIOR AND SUPERIOR.

4416. 10. *Self-Esteem*—Self-respect, personal dignity, pride, haughtiness.

4417. 11. *Approbativeness*—Thirst for praise, fame, or glory; ambition, vanity.

4418. 12. *Cautiousness*—Circumspection, timidity, fear, despondency.

4419. 13. *Benevolence*—Universal charity, mildness of disposition.

4420. 14. *Veneration*—Reverence, superstitious adoration, bigotry.

4421. 15. *Firmness*—Determination, perseverance, obstinacy, resolution.

4422. 16. *Conscientiousness*—Love of truth, sense of justice, duty.

4423. 17. *Hope*—Expects future good; cherishes faith, love of scheming.

4424. 18. *Wonder*—Desire of novelty, belief in the supernatural.

4425. 19. *Ideality*—Love of the beautiful, or excellent, poetic feeling.

4426. 20. *Mirthfulness*—Wit, humor, glee, love of the ludicrous.

4427. 21. *Imitation*—Expression in arts, or action; mimicry.

INTELLECT, OR KNOWING AND REFLECTING FACULTIES.

4428. 22. *Individuality*—Observes existences, simple facts.

4429. 23. *Form*—Observes configuration and the shape of bodies generally.

4430. 24. *Size*—Gives the idea of space, distance, dimension.

4431. 25. *Weight*—Perceives momentum, resistance, equilibrium.

4432. 26. *Coloring*—Gives perception of colors, and their harmonies.

4433. 27. *Locality*—Gives the idea of relative position, place.

4434. 28. *Number*—Talent for calculation, quickness in figures.

4435. 29. *Order*—Communicates the love of physical arrangement.

4436. 30. *Eventuality*—Observes and remembers occurrences and events.

4437. 31. *Time*—Perceives duration in nature, time in music.

4438. 32. *Tune*—Sense of musical harmony, melody.

4439. 33. *Language*—Verbal memory, fluency in speech or writing.

4440. 34. *Comparison*—Discovers analogies and differences.

4441. 35. *Causality*—Traces the relation of cause and effect.

4442. *Memory* is merely a degree of activity of the knowing and reflecting organs, each organ enabling the mind to recall the impressions which it served at first to receive.

4443. *Judyment* is the decision of 34 and 35 upon feelings and ideas furnished by the other faculties.

4444. The faculties, in themselves, are instructive; the moral sentiments and intellect being higher than the animal propensities.

4445. *Temperaments.*—These are four in number, viz:—The *Nervous*, the *Bilious*, the *Sanguine*, and the *Lymphatic.*

4446. The *Nervous* temperament is known by the person having fine, thin hair, usually brown; thin, pale or fair skin; gray or dark blue eyes; small muscles. Very active.

4447. The *Bilious* temperament has black hair and eyes, dark or swarthy skin, firm muscles, strong features, and great energy of will.

4448. The *Sanguine* temperament is fair and florid; happy, healthy countenance; handsome in youth, and hopeful in spirit always.

4449. The *Lymphatic* temperament has soft fat muscles; pale or bloodless complexion; slow and languid in action, and usually dull or very easy in mind.

SYNOPSIS OF AMERICAN HISTORY.

4450. Showing the year in which each State was settled, by what people, the number of square miles, and the capital of each State, etc.

4451. *Maine.*—Settled 1630, by English; 36,000 square miles; capital, Augusta; admitted into the Union 1820.

4452. *New Hampshire.*—Settled 1623, by English; 9,500 square miles; capital, Concord; one of the "Old Thirteen."

4453. *Massachusetts.*—Settled 1620, by English; 7,500 square miles; capital, Boston; one of the "Old Thirteen."

4454. *Vermont.*—Settled 1749, by English; square miles, 10,200; capital, Montpelier; admitted into the Union 1791.

4455. *Rhode Island.*—Settled 1636, by English; 1350 square miles; capital, Providence and Newport; one of the "Old Thirteen."

4456. *Connecticut.*—Settled 1633, by English; 4,760 square miles; capital, Hartford and New Haven; one of the "Old Thirteen."

4457. *New York.*—Settled 1614, by Dutch; square miles, 46,000; capital, Albany; one of the "Old Thirteen."

4458. *New Jersey.*—Settled 1624, by Dutch and Danes; square miles, 8,300; capital, Trenton; one of the "Old Thirteen."

4459. *Pennsylvania.*—Settled 1682, by English; square miles, 44,000; capital, Harrisburg; one of the "Old Thirteen."

4460. *Delaware.*—Settled 1627, by Swedes and Finns; square miles, 2100; capital, Dover; one of the "Old Thirteen."

4461. *Maryland.*—Settled 1634, by English; square miles, 14,000; capital, Annapolis; one of the "Old Thirteen."

4462. *Virginia.*—Settled 1607, by English; square miles, 64,000; capital, Richmond; one of the "Old Thirteen."

4463. *North Carolina.*—Settled 1650, by English; square miles, 48,000; capital, Raleigh; one of the "Old Thirteen."

4464. *South Carolina.*—Settled 1689, by English; square miles, 24,000; capital, Columbus; one of the "Old Thirteen."

4465. *Georgia.*—Settled 1733, by English; square miles, 60,000; capital, Milledgeville; one of the "Old Thirteen."

4466. *Florida.*—For near two hundred years under Spain, was ceded to the United States in 1819, and the East and West formed one territory in 1822; St. Augustine is the oldest town in the United States; Tallahasse is the capital; Pensacola, U. S. naval station. Admitted into the Union 1845.

4467. *Ohio.*—Settled 1788, by English; square miles, 39,000; capital, Columbus; admitted into the Union 1802.

4468. *Indiana.*—Settled 1730, by French; square miles, 36,000; capital, Indianapolis; admitted into the Union 1816.

4469. *Illinois.*—Settled 1749, by French; square miles, 52,000; capital, Springfield; admitted into the Union 1818.

4470. *Missouri.*—Settled 1763, by French; square miles, 60,000; capital, Jefferson city; admitted into the Union 1821.

4471. *Michigan.*—Settled 1670, by French; square miles, 65,000; capital, Lansing; admitted into the Union 1836.

4472. *Iowa.*—Settled by emigrants from other of the United

States and Germans; square miles, 150,000; capital, Iowa city; admitted into the Union 1846.

4473. *Wisconsin.*—Settled by emigrants chiefly from New England and Europe; square miles, 80,000; capital, Madison; admitted into the Union 1848.

4474. *Alabama.*—Settled 1713, by French; square miles, 44,000; capital, Montgomery; admitted into the Union 1819.

4475. *Mississippi.*—Settled 1716, by French; square miles, 45,000; capital, Jackson; admitted into the Union 1817.

4476. *Louisiana.*—Settled 1699, by French; square miles, 48,000; capital, Baton Rouge; admitted into the Union 1811.

4478. *Texas.*—Settled 1692, by Spanish; square miles, 240,000; Settled by Americans 1821; capital, Austin; admitted into the Union 1845.

4479. *Arkansas.*—Settled by French from Louisiana, and formed part of Missouri in 1819; square miles, 57,000; capital, Little Rock; admitted into the Union 1836.

4480. *Tennessee.*—Settled 1765, by English; square miles, 40,000; capital, Nashville; admitted into the Union 1796.

4481. *Kentucky.*—Settled by Virginians; square miles, 42,000; capital, Frankfort; admitted into the Union 1792.

4482. *California.*—Settled 1769, by Spaniards; ceded to the United States by Mexico, 1848; square miles, 188,000; capital, Sacramento; admitted into the Union 1850.

4483. *Territories of the United States.*

4484. *Oregon Territory.*—Beyond the Rocky Mountains; settled by emigrants from the States; will soon be admitted

into the Union; capital, Oregon city; square miles over 300,000.

4485. *Minnesota Territory.*—Settled by emigrants from the older States; capital, St. Paul; will soon be admitted into the Union.

4486. *Utah Territory.*—Settled by Mormons; capital, Salt Lake city; not to be admitted into the Union with its present institutions.

4487. *New Mexico Territory.*—Settled by Spaniards; ceded to the United States 1849; capital, Santa Fe; will probably soon be admitted into the Union.

4488. *Washington Territory.*—Settled by English; square miles, 257,000; capital, Puget's Sound; very few American settlers.

4489. *Kansas Territory.*—Settled by emigrants chiefly from Missouri and the New England States; capital, Lecompton; will soon be admitted into the Union.

4490. *Nebraska Territory.*—Settled by emigrants from the older States; capital, Omaha city.

WORDS OF WASHINGTON.

4491. The following rules were found among the early papers of this great hero, patriot and statesman. He wrote them when, probably, about fourteen or fifteen years of age.

4492. As these rules were a guide to him, evidently shown in his life and character, so may they influence the conduct of Young America.

4493. Rules of civility and decent behavior in company and conversation, written by GEORGE WASHINGTON.

4494. Every action in company ought to be with some sign of respect to those present.

4495. Be no flatterer; neither play with any one that delights not to be played with.

4496. Read no letters, books, or papers in company; but when there is a necessity for doing it, you must ask leave. Come not near the books or writings of any one so as to read them, unless desired, nor give your opinion of them unasked; also look not nigh when another is writing a letter.

4497. Let your countenance be pleasant, but in serious matters somewhat grave.

4498. Show not yourself glad at the misfortune of another, though he were your enemy.

4499. When you meet with one of greater quality than yourself, stop and retire, especially if it be at a door or any strait place, to give way for him to pass.

4500. They that are in dignity, or in office, have in all places precedency; but whilst they are young they ought to respect those that are their equals in birth, or other qualities, though they have no public charge.

4501. It is good manners to prefer them to whom we speak before ourselves, especially if they be above us, with whom in no sort we ought to begin.

4502. Let your discourse with men of business be short and comprehensive.

4503. In visiting the sick, do not presently play the physician, if you be not knowing therein.

4504. In writing, or speaking, give to every person his due title, according to his degree and the custom of the place.

4505. Strive not with your superiors in argument, but always submit your judgment to others with modesty.

4506. Undertake not to teach your equal in the art he himself professes; it savors of arrogance.

4507. When a man does all he can, though it succeeds not well, blame not him that did it.

4508. Being to advise or reprehend any one, consider whether it ought to be in public or in private; presently or at some other time; in what terms to do it; and in reproving show no signs of choler, but do it with sweetness and mildness.

4509, Take all admonitions thankfully, in what time or place soever given; but afterward, not being culpable, take a time or place convenient to let him know it that gave them.

4510. Mock not, nor jest at any thing of importance; break no jests that are sharp-biting; and if you deliver any thing witty and pleasant, abstain from laughing thereat yourself.

4511. Wherein you reprove another, be unblamable yourself; for example is more prevalent than precepts.

4512. Use no reproachful language against any one, neither curse nor revile.

4513. Be not hasty to believe flying reports to the disparagement of any.

4514. In your apparel be modest, and endeavor to accommodate nature rather than to procure admiration; keep to the fashion of your equals, such as are civil and orderly with respect to times and places.

4515. Associate yourselves with men of good quality, if you esteem your own reputation, for it is better to be alone than in bad company.

4516. Be not immodest in urging your friend to discover a secret.

4517. Utter not base or frivolous things amongst grave and learned men; nor very difficult questions or subjects among the ignorant; nor things hard to be believed.

4518. Speak not of doleful things in time of mirth, nor at the table; speak not of melancholy things, as death, and wounds; and if others mention them, change, if you can, the discourse. Tell not your dreams but to your intimate friend.

4519. Break not a jest where none takes pleasure in mirth; laugh not aloud, nor at all without occasion. Deride no man's misfortune, though there seem to be some cause.

4520. Speak not injurious words neither in jest nor earnest; scoff at none, although they give occasion.

4521. Be not forward, but friendly and courteous; the first to salute, hear, and answer; and be not pensive when it is a time to converse.

4522. Detract not from others, neither be excessive in commending.

4523. If two contend together, take not the part of either unconstrained, and be not obstinate in your own opinion; in things indifferent, be of the major side.

4524. Think before you speak; pronounce not imperfectly, nor bring out your words too hastily, but orderly and distinctly.

4525. When another speaks, be attentive yourself, and disturb not the audience. If any hesitate in his words, help him not, nor prompt him without being desired; interrupt him not, nor answer him till his speech be ended.

4526. Make no comparisons; and if any of the company be commended for any brave act of virtue, commend not another for the same.

4527. Be not apt to relate news, if you know not the truth thereof. In discoursing of things you have heard, name not your author always. A secret discover not.

4528. Undertake not what you cannot perform, but be careful to keep your promise.

4529. In disputes be not so desirous to overcome as not to give liberty to each one to deliver his opinion, and submit to the judgment of the major part, especially if they are judges of the dispute.

4530. Speak not evil of the absent, for it is unjust.

4531. Be not angry at table, whatever happens; and if you have reason to be so, show it not; put on a cheerful countenance, especially if there be strangers, for good humor makes one dish of meat a feast.

4532. When you speak of God, or his attributes, let it be seriously in reverence. Honor and obey your natural parents, although they be poor.

4533. Let your recreations be manful, not sinful.

4534. Labor to keep alive in your breast that little spark of celestial fire called conscience.

USEFUL FAMILY TABLES.

WEIGHTS AND MEASURES.

4535. A—*Measure of Length.*

12	Inches	=	1 Foot,
3	Feet	"	1 Yard,
5½	Yards	"	1 Rod, or Pole,
40	Poles	"	1 Furlong,
8	Furlongs	"	1 Mile,
69 1/51	Miles	"	1 Degree of Great Circle of Earth.

4536. An inch is the smallest lineal measure to which a name is given, but subdivisions are used for many purposes. Among mechanics the inch is commonly divided into *eighths.* By the officers of the revenue, and by scientific persons, it is divided into *tenths, hundredths,* &c. Formerly it was made to consist of twelve parts called lines.

4537. B.—*Particular Measures of Length.*

A Nail	=	2¼ inches	
Quarter	"	4 Nails	Used for measuring Cloth of all kinds.
Yard	"	4 Quarters	
Ell	"	5 Quarters	
Hand	"	4 Inches, used for the height of Horses.	
Fathom	"	6 Feet, used in measuring depths.	
Link	"	7 In. 92 hdths.	Used in Land Measure to facilitate computation of content, 10 sq. chains being equal to an acre.
Chain	"	100 Links	

4538. C.—*Measure of Surface.*

144	Square Inches	=	1 Square Foot
9	Square Feet	"	1 Square Yard
30¼	Square Yards	"	1 Perch, or Rod
40	Perches	"	1 Rood
4	Roods	"	1 Acre
640	Acres	"	1 Square Mile.

4539. D.—*Measures of Solidity and Capacity.*

DIVISION I.—SOLIDITY.

1728	Cubic Inches	=	1 Cubic Foot
27	Cubic Feet	"	1 Cubic Yard.

DIVISION II.—CAPACITY.

4 Gills	=	1 Pint	=	34⅔	cubic inches nearly.
2 Pints	"	1 Quart	"	69½	"
4 Quarts	"	1 Gallon	"	277¼	"
2 Gallons	"	1 Peck	"	554½	"
8 Gallons	"	1 Bushel	"	2218¼	"
8 Bushels	"	1 Quarter	"	10¼	cubic feet nearly.
5 Quarters	"	1 Load	"	51½	"

4540. The four last denominations are used for dry goods only. For liquids several denominations have been heretofore adopted, viz.:—for Beer, the Firkin of 9 gallons, the Kilderkin, of 18, the Barrel, of 36, the Hogshead, of 54, and the Butt, of 108 gallons. These will probably continue to be used in practice. For Wine and Spirits, there are the Anker, Runlet, Tierce, Hogshead, Puncheon, Pipe, Butt, and Tun; but these may be considered rather as the names of the casks

in which such commodities are imported, than as expressing any definite number of gallons. It is the practice to gauge all such vessels, and to charge them according to their actual content.

4541. Flour is sold nominally by measure, but actually by weight, reckoned at 7lbs. Avoirdupois to a gallon.

4542. E.—*Measure of Avoirdupois Weight.*

$27\frac{11}{32}$ Grains	=	1 Dram	=	$27\frac{11}{32}$	grains.
16 Drams	"	1 Ounce	"	$437\frac{1}{2}$	"
16 Ounces	"	1 Pound (lb.)	"	7000	"
28 Pounds	"	1 Quarter (qr.)			
4 Quarters	"	1 Hundred-weight (cwt.)			
20 Cwt.	"	1 Ton.			

This weight is used in almost all commercial transactions, and in the common dealings of life.

A Firkin of Butter.....56 lb.	A Barrel of Soap.....256 lb.
———— Soap.....64 "	————Raisins...112 "
A Barrel of Anchovies..30 "	A fother of Lead.....19½ cwt.

4543. F.—*Measures of Pounds.*

The following table of the number of pounds of various articles to a bushel, may be of interest to some of our farming friends.

Wheat	60	lbs. is 1 bus.	Clover Seed	60	lb. is 1 bus.
Shelled Corn	46	" "	Timothy seed	45	" "
Corn in cob	70	" "	Flax Seed	56	" "
Oats	35	" "	Hemp Seed	44	" "
Barley	48	" "	Buckwheat	42	" "
Potatoes	60	" "	Blue grass seed	14	" "
Beans	60	" "	Castor Beans	46	" "
Bran	20	" "			

4544. G.—*Measures for Housekeepers.**

Wheat Flour,	1 lb.	is	1 quart
Indian Meal,	1 " 2 oz.	"	1 "

* By the above method, persons not having scales and weights at hand, may readily measure the articles wanted to form any receipt, without the trouble of weighing. Allowance to be made for an extraordinary dryness or moisture of the article weighed or measured.

Butter, when soft,	1	"	"	1	"
Loaf Sugar, broken	1	"	"	1	"
White Sugar, powdered	1	" 1 oz.	"	1	"
Best Brown Sugar,	1	" 2 oz.	"	1	"
Eggs,	10 eggs		are	1	lb.
Flour,	8 quarts		"	1	peck.
Flour,	4 pecks		"	1	bus.

4545.* LIQUIDS.

16 large table-spoonsful	are	half a pint
8 large table-spoonsful	are	one gill.
4 large table-spoonsful	are	half a gill
2 gills	are	half a pint
2 pints	are	one quart
4 quarts	are	one gallon
A common sized tumbler	holds	half a pint
A common-sized wine-glass	holds	half a gill
25 drops are equal to		one teaspoonful

* The Nurse will find this manner of measuring liquids very convenient; to the housekeeper it will be of importance. A similar "Table of Weights and Measures" is prefixed to the *"New Cook Book;"* and to that work of mine the patrons of this "Receipt Book" are referred for information on all matters of "household good," not found, or not fully explained in this treatise. The two volumes are intended as family companions, and will, I trust, be usually found together.

S. J. H.

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